Application

04786 - 2016 Multiuse Trails and Bicycle Facilities

05273 - Replacement of Rosland Park Pedestrian & Bicycle Bridge over TH 62

Regional Solicitation - Bicycle and Pedestrian Facilities

Status:	Submitted
Submitted Date:	07/15/2016 9:31 AM

Primary Contact

Name:*		Mark		Nolan
	Salutation	First Name	Middle Name	Last Name

Title:	Transportation Planner
Department:	Engineering Department
Email:	mnolan@edinamn.gov
Address:	7450 Metro Blvd
	7450 Metro Blvd

*	Edina	Minnesota	55439
	City	State/Province	Postal Code/Zip

Phone:*	952-826-0322	
	Phone	Ext.

Fax:	

What Grant Programs are you most interested in?	Regional Solicitation - Bicycle and Pedestrian Facilities

Organization Information

Name:	EDINA,CITY OF
Jurisdictional Agency (if different):	

Organization Type:	City
Organization Website:	
Address:	PUBLIC WORKS DEPARTMENT 7450 METRO BLVD
*	EDINA (City) · Minnesota (State/Province) · 55428 (Postal Code/Zip)
County:	Hennepin
Phone:*	952-826-0411 · Ext.
Fax:	
PeopleSoft Vendor Number	0000020940A5

Project Information

Project Name	Replacement of Rosland Park Pedestrian & Bicycle Bridge over TH 62
Primary County where the Project is Located	Hennepin
Jurisdictional Agency (If Different than the Applicant):	
Brief Project Description (Limit 2,800 characters; approximately 400 words) *Include location, road name/functional class, type of improvement, etc.*	The scope of this project includes the removal and replacement of the pedestrian and bicycle bridge across TH 62 near Rosland Park. The current bridge is not ADA compliant, and bicycle access is difficult as the bridge is accessed by stairs on both sides with no ramps. The new slab/girder bridge will include new vertical circulation (ramps) at each end that will meet ADA requirements and will allow bicyclists to cross TH 62 without getting off of their bicycles.
TIP Description Guidance (will be used in TIP if the project is selected for funding)	Bridge number 27520, pedestrian bridge over TH 62, 2,600' west of France Ave in Edina, replace old bridge with new bridge and approach ramps, construction of bituminous bike trail
Project Length (Miles)	0.24

Project Funding

Are you applying for funds from another source(s) to implement this project?	No
If yes, please identify the source(s)	
Federal Amount	$1,993,200.00
Match Amount	$498,300.00
Minimum of 20% of project total	
Project Total	$2,491,500.00
Match Percentage	20.0%
Minimum of 20% *Compute the match percentage by dividing the match amount by the project total*	
Source of Match Funds	Pedestrian and Cyclist Safety (PACS) Fund, TIF funding

A minimum of 20% of the total project cost must come from non-federal sources; additional match funds over the 20% minimum can come from other federal sources

Preferred Program Year

Select one:	2020
For TDM projects, select 2018 or 2019. For Roadway, Transit, or Trail/Pedestrian projects, select 2020 or 2021.	
Additional Program Years:	2019
Select all years that are feasible if funding in an earlier year becomes available.	

Project Information

County, City, or Lead Agency	City of Edina
Zip Code where Majority of Work is Being Performed	55435
(Approximate) Begin Construction Date	07/06/2020
(Approximate) End Construction Date	10/01/2020
Name of Trail/Ped Facility:	Rosland Park Pedestrian & Bicycle Bridge
(i.e., CEDAR LAKE TRAIL)	

TERMINI:(Termini listed must be within 0.3 miles of any work)

From:
(Intersection or Address)

To:
(Intersection or Address)

DO NOT INCLUDE LEGAL DESCRIPTION; INCLUDE NAME OF ROADWAY IF MAJORITY OF FACILITY RUNS ADJACENT TO A SINGLE CORRIDOR

Or At:

Primary Types of Work	Bridge, sidewalk, ped/bike path, bit surf

Examples: GRADE, AGG BASE, BIT BASE, BIT SURF, SIDEWALK, SIGNALS, LIGHTING, GUARDRAIL, BIKE PATH, PED RAMPS, BRIDGE, PARK AND RIDE, ETC.

BRIDGE/CULVERT PROJECTS (IF APPLICABLE)

Old Bridge/Culvert No.: 27520

New Bridge/Culvert No.:

Structure is Over/Under (Bridge or culvert name):

Specific Roadway Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	$125,000.00
Removals (approx. 5% of total cost)	$150,000.00
Roadway (grading, borrow, etc.)	$0.00
Roadway (aggregates and paving)	$30,000.00
Subgrade Correction (muck)	$0.00
Storm Sewer	$20,000.00
Ponds	$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	$0.00
Traffic Control	$20,000.00
Striping	$0.00
Signing	$5,000.00
Lighting	$40,000.00
Turf - Erosion & Landscaping	$60,000.00
Bridge	$1,800,000.00
Retaining Walls	$0.00
Noise Wall (do not include in cost effectiveness measure)	$0.00
Traffic Signals	$0.00
Wetland Mitigation	$0.00
Other Natural and Cultural Resource Protection	$0.00
RR Crossing	$0.00
Roadway Contingencies	$226,500.00
Other Roadway Elements	$15,000.00
Totals	**$2,491,500.00**

Specific Bicycle and Pedestrian Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost

Path/Trail Construction	$0.00
Sidewalk Construction	$0.00
On-Street Bicycle Facility Construction	$0.00
Right-of-Way	$0.00
Pedestrian Curb Ramps (ADA)	$0.00
Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	$0.00
Pedestrian-scale Lighting	$0.00
Streetscaping	$0.00
Wayfinding	$0.00
Bicycle and Pedestrian Contingencies	$0.00
Other Bicycle and Pedestrian Elements	$0.00
Totals	**$0.00**

Specific Transit and TDM Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Fixed Guideway Elements	$0.00
Stations, Stops, and Terminals	$0.00
Support Facilities	$0.00
Transit Systems (e.g. communications, signals, controls, fare collection, etc.)	$0.00
Vehicles	$0.00
Contingencies	$0.00
Right-of-Way	$0.00
Other Transit and TDM Elements	$0.00
Totals	**$0.00**

Transit Operating Costs

Number of Platform hours	0
Cost Per Platform hour (full loaded Cost)	$0.00
Substotal	$0.00
Other Costs - Administration, Overhead,etc.	$0.00

Totals

Total Cost	$2,491,500.00
Construction Cost Total	$2,491,500.00
Transit Operating Cost Total	$0.00

Requirements - All Projects

All Projects

1.The project must be consistent with the goals and policies in these adopted regional plans: Thrive MSP 2040 (2014), the 2040 Transportation Policy Plan, the 2040 Regional Parks Policy Plan (2015), and the 2040 Water Resources Policy Plan (2015).

Check the box to indicate that the project meets this requirement. Yes

2.The project must be consistent with the 2040 Transportation Policy Plan. Reference the 2040 Transportation Plan objectives and strategies that relate to the project.

List the goals, objectives, strategies, and associated pages:

A. Transportation System Stewardship - Operate the regional transportation system to efficiently and cost-effectively connect people and freight to destinations (Strategy A2, pg 2.6).

B. Safety and Security - Reduce crashes and improve safety and security for all modes of passenger travel and freight transport (Strategies B1 and B6, pg 2.7).

C. Access to Destinations - Improve multimodal travel options for people of all ages and abilities to connect to jobs and other opportunities, particularly for historically underrepresented populations (Strategies C2, C4, C15 and C16) & B6, pg 2.8-2.10).

D. Competitive Economy - Improve multimodal access to regional job concentrations identified in Thrive MSP 2040; Invest in a multimodal transportation system to attract and retain businesses and residents (Strategies D1 and D3, pg 2.11).

E. Healthy Environment - Increase the availability and attractiveness of transit, bicycling, and walking to encourage healthy communities and active car-free lifestyles (Strategy E3, pg 2.12).

(Limit 2500 characters; approximately 750 words)

3.The project or the transportation problem/need that the project addresses must be in a local planning or programming document. Reference the name of the appropriate comprehensive plan, regional/statewide plan, capital improvement program, corridor study document [studies on trunk highway must be approved by the Minnesota Department of Transportation and the Metropolitan Council], or other official plan or program of the applicant agency [includes Safe Routes to School Plans] that the project is included in and/or a transportation problem/need that the project addresses.

List the applicable documents and pages:

City of Edina 2008 Comprehensive Plan: Comprehensive Bicycle Transportation Plan (pg 39-41)

(Limit 2500 characters; approximately 750 words)

4.The project must exclude costs for studies, preliminary engineering, design, or construction engineering. Right-of-way costs are only eligible as part of bicycle/pedestrian projects, transit stations/stops, transit terminals, park-and-ride facilities, or pool-and-ride lots. Noise barriers, drainage projects, fences, landscaping, etc., are not eligible for funding as a standalone project, but can be included as part of the larger submitted project, which is otherwise eligible.

Check the box to indicate that the project meets this requirement. Yes

5.Applicants that are not cities or counties in the seven-county metro area with populations over 5,000 must contact the MnDOT Metro State Aid Office prior to submitting their application to determine if a public agency sponsor is required.

Check the box to indicate that the project meets this requirement. Yes

6.Applicants must not submit an application for the same project in more than one funding sub-category.

Check the box to indicate that the project meets this requirement. Yes

7.The requested funding amount must be more than or equal to the minimum award and less than or equal to the maximum award. The cost of preparing a project for funding authorization can be substantial. For that reason, minimum federal amounts apply. Other federal funds may be combined with the requested funds for projects exceeding the maximum award, but the source(s) must be identified in the application. Funding amounts by application category are listed below.
Multiuse Trails and Bicycle Facilities: *$250,000 to $5,500,000*
Pedestrian Facilities (Sidewalks, Streetscaping, and ADA): *$250,000 to $1,000,000*
Safe Routes to School: *$150,000 to $1,000,000*

Check the box to indicate that the project meets this requirement. Yes

8.The project must comply with the Americans with Disabilities Act.

Check the box to indicate that the project meets this requirement. Yes

9.The project must be accessible and open to the general public.

Check the box to indicate that the project meets this requirement. Yes

10.The owner/operator of the facility must operate and maintain the project for the useful life of the improvement.

Check the box to indicate that the project meets this requirement. Yes

11.The project must represent a permanent improvement with independent utility. The term independent utility means the project provides benefits described in the application by itself and does not depend on any construction elements of the project being funded from other sources outside the regional solicitation, excluding the required non-federal match. Projects that include traffic management or transit operating funds as part of a construction project are exempt from this policy.

Check the box to indicate that the project meets this requirement. Yes

12.The project must not be a temporary construction project. A temporary construction project is defined as work that must be replaced within five years and is ineligible for funding. The project must also not be staged construction where the project will be replaced as part of future stages. Staged construction is eligible for funding as long as future stages build on, rather than replace, previous work.

Check the box to indicate that the project meets this requirement. Yes

13.The project applicant must send written notification regarding the proposed project to all affected state and local units of government prior to submitting the application.

Check the box to indicate that the project meets this requirement. Yes

Requirements - Bicycle and Pedestrian Facilities Projects

1.All projects must relate to surface transportation. As an example, for multiuse trail and bicycle facilities, surface transportation is defined as primarily serving a commuting purpose and/or that connect two destination points. A facility may serve both a transportation purpose and a recreational purpose; a facility that connects people to recreational destinations may be considered to have a transportation purpose.

Check the box to indicate that the project meets this requirement. Yes

Multiuse Trails on Active Railroad Right-of-Way:

2.All multiuse trail projects that are located within right-of-way occupied by an active railroad must attach an agreement with the railroad that this right-of-way will be used for trail purposes.

Check the box to indicate that the project meets this requirement.

Safe Routes to School projects only:

3.All projects must be located within a two-mile radius of the associated primary, middle, or high school site.

Check the box to indicate that the project meets this requirement.

4.All schools benefitting from the SRTS program must conduct after-implementation surveys. These include the student travel tally form and the parent survey available on the National Center for SRTS website. The school(s) must submit the after-evaluation data to the National Center for SRTS within a year of the project completion date. Additional guidance regarding evaluation can be found at the MnDOT SRTS website.

Check the box to indicate that the applicant understands this requirement and will submit data to the National Center for SRTS within one year of project completion.

Requirements - Bicycle and Pedestrian Facilities Projects

Measure A: Project Location Relative to the RBTN

Select one:

Tier 1, Priority RBTN Corridor

Tier 1, RBTN Alignment

Tier 2, RBTN Corridor

Tier 2, RBTN Alignment

Direct connection to an RBTN Tier 1 corridor or alignment

Direct connection to an RBTN Tier 2 corridor or alignment

OR

Project is not located on or directly connected to the RBTN, but is part of a local system and identified within an adopted county, city or regional parks implementing agency plan.	Yes
Upload Map	1466622493447_BikeCorridors.pdf

Measure A: Population Summary

Existing Population Within One Mile (Integer Only)	26556
Existing Employment Within One Mile (Integer Only)	29285
Upload the "Population Summary" map	1466622570880_Population Summary.pdf

Measure A: Project Location and Impact to Disadvantaged Populations

Select one:

Project located in Area of Concentrated Poverty with 50% or more of residents are people of color (ACP50):	
Project located in Area of Concentrated Poverty:	
Projects census tracts are above the regional average for population in poverty or population of color:	
Project located in a census tract that is below the regional average for population in poverty or populations of color or includes children, people with disabilities, or the elderly:	Yes
Response (Limit 2,800 characters; approximately 400 words)	The project improves a bicycle and pedestrian facility that is separated from vehicular traffic via an ADA-accessible bridge, and connects bicycle facilities north of TH 62 to Rosland Park and the Citys Aquatic Center. This greatly benefits cyclists (and especially children), who must now dismount their bikes before crossing the bridge, having to place their wheels in a narrow bike wheel ramp mounted on the steps or carry their bike. It also makes the bridge inaccessible to strollers and wheelchairs. Additionally, those who are unable to afford an automobile are provided a safer, more comfortable facility to cycle on.

The response should address the benefits, impacts, and mitigation for the populations affected by the project.

Upload Map	1466622603824_SocioEconomic.pdf

Measure B: Affordable Housing

City/Township	Segment Length in Miles (Population)
Edina	0.24
	0

Total Project Length

Total Project Length (Total Population)	0.24

Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

City/Township	Segment Length (Miles)	Total Length (Miles)	Score	Segment Length/Total Length	Housing Score Multiplied by Segment percent

0	**0**	**0**	**0**

Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

Total Project Length (Miles) 0.24

Total Housing Score 0

Measure A: Gaps, Barriers and Continuity/Connections

Check all that apply:

Gap improvements can be on or off the RBTN and may include the following:
• Providing a missing link between existing or improved segments of a regional (i.e., RBTN) or local transportation network;

•Improving bikeability to better serve all ability and experience levels by:
• Providing a safer, more protected on-street facility;

•Improving crossings at busy intersections (signals, signage, pavement markings); OR

•Improving a bike route or providing a trail parallel to a highway or arterial roadway along a lower-volume neighborhood collector or local street. Barrier crossing improvements (on or off the RBTN) can include crossings (over or under) of rivers or streams, railroad corridors, freeways, or multi-lane highways, or enhanced routes to circumvent the barrier by channeling bicyclists to existing safe crossings or grade separations. (For new barrier crossing projects, data about the nearest parallel crossing (as described above) must be included in the application to be considered for the full allotment of points under this criterion).

Closes a transportation network gap and/or provides a facility that crosses or circumvents a physical barrier Yes

Improves continuity and/or connections between jurisdictions (on or off the RBTN) (e.g., extending a specific bikeway facility treatment across jurisdictions to improve consistency and inherent bikeability)

Improves Continuity and/or Connections Between Jurisdictions

Response (Limit 2,800 characters; approximately 400 words)

The City of Edina is bisected in both directions by state highways (TH 100 and TH 62), which effectively serve as barriers to cyclists. This project crosses over one such physical barrier: TH 62. Currently, the bicycle and pedestrian bridge that crosses over the highway is not ADA accessible, nor accessible for bikes. The existing bridge sits between a bicycle boulevard to the north, and another to the south (along with Rosland Park and the City's Aquatic Center). However, it is accessed by stairs; thus, it is not usable for many with disabilities and cyclists must dismount their bikes to use it. The nearest location of a parallel crossing is Valley View Road, which crosses under TH 62 over a quarter-mile to the east. However, this roadway lacks bicycle facilities and carries 8,000 vehicles per day. The next closest crossing of the TH 62 barrier is France Avenue, nearly a half-mile east. However, France Avenue is a five-lane roadway (23,000 ADT, posted speed 35 mph) and has no bike facilities and its intersection with TH 62 is one of the most unsafe intersections in Edina (according to crash history). The nearest parallel crossing of TH 62 to the west is one mile away, via a vehicular bridge over the higway at Wyman Avenue.

Measure B: Project Improvements

Response (Limit 2,800 characters; approximately 400 words)

The project addresses safety problems for cyclists by providing a bike-accessible crossing of TH 62, as an alternate to the nearest parallel crossing (at Valley View Road, nearly a half-mile to the east, which has no dedicated bike facility). Pedestrian safety issues are also addressed, and in particular for the elderly and those with disabilities, by providing an ADA-accessible bridge. This is accomplished by replacing the stairs that must be used to cross the bridge with ramps that pedestrians and cyclists can use to cross the barrier of TH 62.

Measure A: Multimodal Elements

Response (Limit 1,400 characters; approximately 200 words)	Transit elements are not included with this project as there is no transit service in the area (a bridge crossing TH 62 between a City park and a local street). However, this facility is used by bicycle commuters. This project will greatly improve their access and provide a facility for others to safety cross over TH62. It will also greatly improve the pedestrian access across TH 62 and between northeast and southeast Edina in general. As stated, the current bridge is not accessible to those with disabilities, and is difficult for cyclists who must dismount their bikes to cross the bridge.

Transit Projects Not Requiring Construction

If the applicant is completing a transit or TDM application that is operations only, check the box and do not complete the remainder of the form. These projects will receive full points for the Risk Assessment.
Park-and-Ride and other transit construction projects require completion of the Risk Assessment below.

Check Here if Your Transit Project Does Not Require Construction

Measure A: Risk Assessment

1)Project Scope (5 Percent of Points)

Meetings or contacts with stakeholders have occurred

100%

Stakeholders have been identified Yes

40%

Stakeholders have not been identified or contacted

0%

2)Layout or Preliminary Plan (5 Percent of Points)

Layout or Preliminary Plan completed Yes

100%

Layout or Preliminary Plan started

50%

Layout or Preliminary Plan has not been started

0%

Anticipated date or date of completion

3)Environmental Documentation (5 Percent of Points)

EIS

EA

PM Yes

Document Status:

Document approved (include copy of signed cover sheet) 100%

Document submitted to State Aid for review 75% date submitted

Document in progress; environmental impacts identified; review request letters sent

50%

Document not started Yes

0%

Anticipated date or date of completion/approval

4)Review of Section 106 Historic Resources (10 Percent of Points)

No known historic properties eligible for or listed in the National Register of Historic Places are located in the project area, and project is not located on an identified historic bridge Yes

100%

Historic/archeological review under way; determination of no historic properties affected or no adverse effect anticipated

80%

Historic/archaeological review under way; determination of adverse effect anticipated

40%

Unsure if there are any historic/archaeological resources in the project area

0%

Anticipated date or date of completion of historic/archeological review:

Project is located on an identified historic bridge

5)Review of Section 4f/6f Resources (10 Percent of Points)

4(f) Does the project impacts any public parks, public wildlife refuges, public golf courses, wild & scenic rivers or public private historic properties?
6(f) Does the project impact any public parks, public wildlife refuges, public golf courses, wild & scenic rivers or historic property that was purchased or improved with federal funds?

No Section 4f/6f resources located in the project area

100%

No impact to 4f property. The project is an independent bikeway/walkway project covered by the bikeway/walkway Negative Declaration statement; letter of support received

100%

Section 4f resources present within the project area, but no known adverse effects Yes

80%

Project impacts to Section 4f/6f resources likely coordination/documentation has begun

50%

Project impacts to Section 4f/6f resources likely coordination/documentation has not begun

30%

Unsure if there are any impacts to Section 4f/6f resources in the project area

0%

6)Right-of-Way (15 Percent of Points)

Right-of-way, permanent or temporary easements not required Yes

100%

Right-of-way, permanent or temporary easements has/have been acquired

100%

Right-of-way, permanent or temporary easements required, offers made

75%

Right-of-way, permanent or temporary easements required, appraisals made

50%

Right-of-way, permanent or temporary easements required, parcels identified

25%

Right-of-way, permanent or temporary easements required, parcels not identified

0%

Right-of-way, permanent or temporary easements identification has not been completed

0%

Anticipated date or date of acquisition

7)Railroad Involvement (25 Percent of Points)

No railroad involvement on project Yes

100%

Railroad Right-of-Way Agreement is executed (include signature page) 100%

Railroad Right-of-Way Agreement required; Agreement has been initiated

60%

Railroad Right-of-Way Agreement required; negotiations have begun

40%

Railroad Right-of-Way Agreement required; negotiations not begun

0%

Anticipated date or date of executed Agreement

8)Interchange Approval (15 Percent of Points)*

**Please contact Karen Scheffing at MnDOT (Karen.Scheffing@state.mn.us or 651-234-7784) to determine if your project needs to go through the Metropolitan Council/MnDOT Highway Interchange Request Committee.*

Project does not involve construction of a new/expanded interchange or new interchange ramps	Yes

100%

Interchange project has been approved by the Metropolitan Council/MnDOT Highway Interchange Request Committee

100%

Interchange project has not been approved by the Metropolitan Council/MnDOT Highway Interchange Request Committee

0%

9)Construction Documents/Plan (10 Percent of Points)

Construction plans completed/approved (include signed title sheet)

100%

Construction plans submitted to State Aid for review

75%

Construction plans in progress; at least 30% completion

50%

Construction plans have not been started	Yes

0%

Anticipated date or date of completion	05/04/2020

10)Letting

Anticipated Letting Date	11/18/2019

Measure A: Cost Effectiveness

Total Project Cost (entered in Project Cost Form):	$2,491,500.00
Enter Amount of the Noise Walls:	$0.00

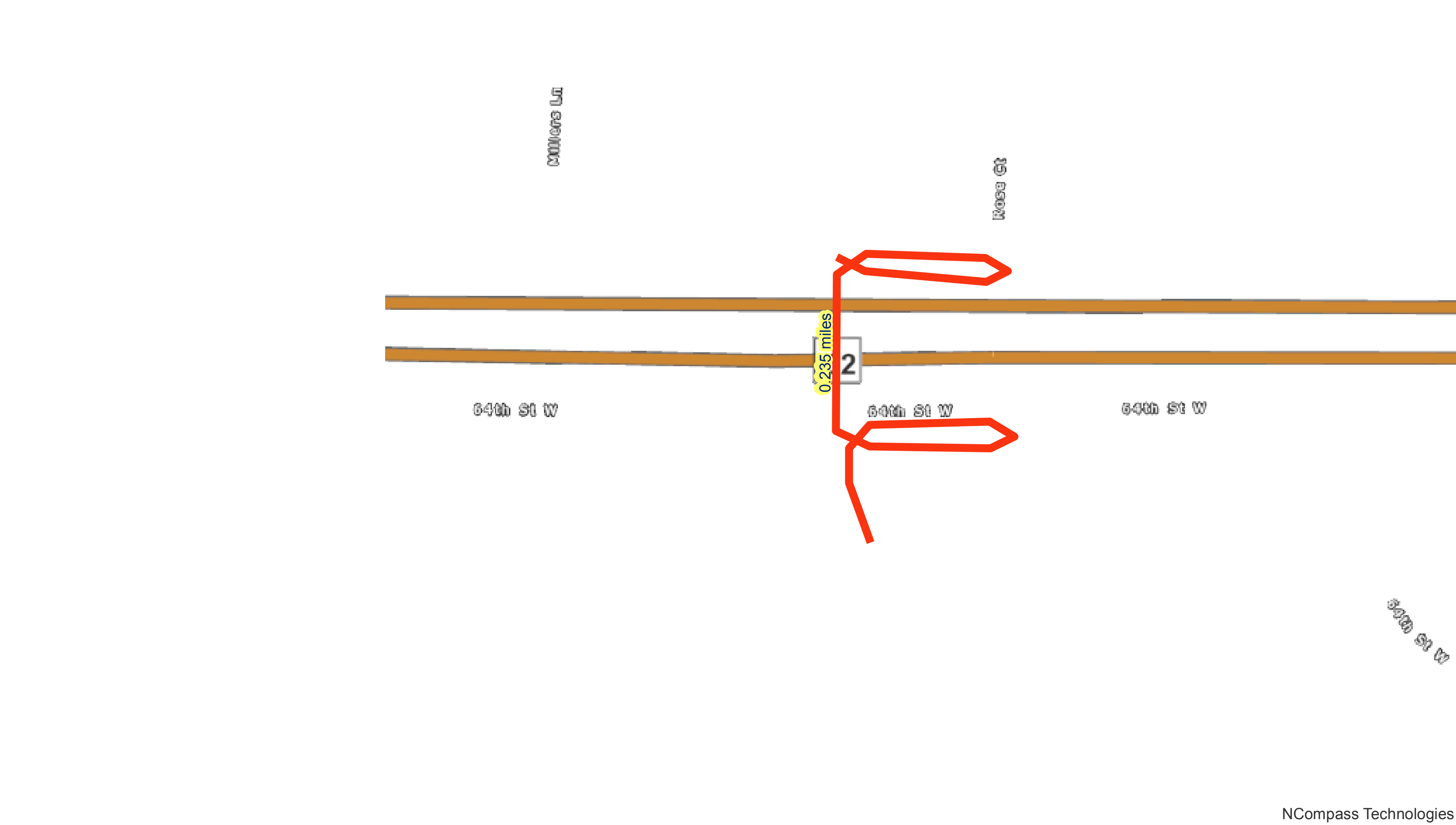
Total Project Cost subtract the amount of the noise walls:	$2,491,500.00
Points Awarded in Previous Criteria	
Cost Effectiveness	$0.00

Other Attachments

File Name	Description	File Size
01F_TEdinaFinalReport.pdf	Report prepared by a "capstone" team of graduate students from the University of Minnesota's Civil Engineering Department.	5.3 MB
Rosland Park ped bridge TH 62 MnDOT letter of support.pdf	Letter of support from MnDOT, who has jurisdiction over the bridge.	105 KB

Project to RBTN Orientation

Multiuse Trails and Bicycle Facilities Project: Replacement of Rosland Park Pedestrian & Bicycle Bridge over | Map ID: 1466621398174



Project
Principal Arterials
Minor Arterials
RBTN Tier 1
RBTN Tier 2

0 0.02 0.04 0.08 0.12 0.16 Miles

Created: 6/22/2016
LandscapeRSA1

For complete disclaimer of accuracy, please visit http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx

METROPOLITAN COUNCIL

Population Summary

Multiuse Trails and Bicycle Facilities Project: Replacement of Rosland Park Pedestrian & Bicycle Bridge over | Map ID: 1466213

Results

Within ONE Mile of project:
Total Population: 26556
Total Employment: 29285

Project
School
2010 TAZ

0 0.02 0.04 0.08 0.12 0.16 Miles

Created: 6/22/2016
LandscapeRSA4

For complete disclaimer of accuracy, please visit
http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx

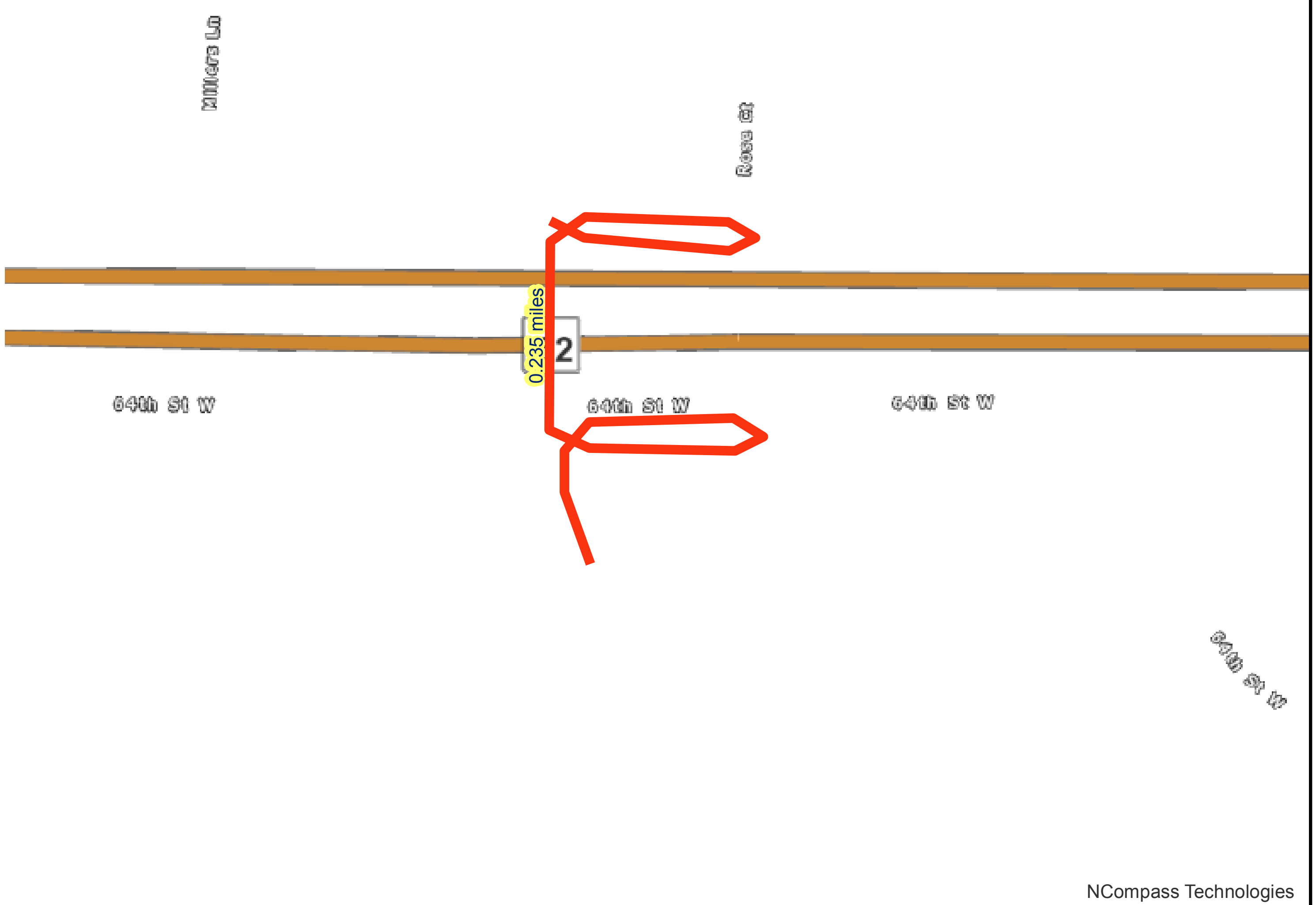
METROPOLITAN COUNCIL

Socio-Economic Conditions

Multiuse Trails and Bicycle Facilities Project: Replacement of Rosland Park Pedestrian & Bicycle Bridge over | Map ID: 1466621

Results

Project located in
a census tract that is below
the regional average for
population in poverty
or populations of color,
or includes children,
people with disabilities,
or the elderly:
(0 to 12 Points)



Project

Area of Concentrated Poverty

Area of Concentrated Povertry > 50% residents of color

Above reg'l avg conc of race/poverty

0 0.02 0.04 0.08 0.12 0.16 Miles

Created: 6/22/2016
LandscapeRSA2

For complete disclaimer of accuracy, please visit
http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx

METROPOLITAN COUNCIL

DLN Consulting
1423 5^{th} St SE
Apt. #3C
Minneapolis, MN 55414

May 5, 2016

Mr. Chad Millner
Mr. Carter Schulze
City of Edina Engineering Department
7450 Metro Boulevard
Edina, MN 55439

Re: 01F_T:Edina: Impacts Associated with a Pedestrian Bridge over Highway 62

Dear Mr. Millner and Mr Schulze:

Please find attached a report in response to your request for design options intended to make the current pedestrian bridge, crossing Highway 62 west of Valley View Road in Edina, Minnesota, ADA accessible. Included in this report are options to increase the bridge accessibility, with options for a new bridge. Additionally, an analysis for each one of the primary detailed designs is included, based on MnDOT bridge specifications and ADA standards for bridge accessibility.

The primary goal of this project was to increase accessibility and adhere to ADA standards for ramps. Secondary goals associated with this project include connecting two disconnected bike paths on either side of Highway 62, as well as to aide in snow removal from the bridge by the City of Edina. After these goals were satisfied, a cost benefit analysis was performed to determine the most viable and workable options for improving the bridge.

The designs took under consideration soil conditions, utility information, and groundwater drainage reviewed by outside consultants and DLN Consulting and produced diagrams illustrating the design options. The recommended replacement option is a new bridge in the existing location, that utilizes a two symmetrical "switchbacks" connecting to the existing paths. The estimated cost for the demolition of the old bridge and construction of a new bridge is approximately $2.3 million, comparable to the cost to retrofit/ rehabilitate the existing bridge.

It has been our pleasure working with you on this project and we thank you for this opportunity to work with the City of Edina. We look forward to working with you on future projects.

Sincerely,
Daniel S. Van Horn

Daniel S. Van Horn
University of Minnesota Civil Engineering Student
vanho161@umn.edu
(712) 830-7530

Enclosures: DLN Consulting Report titled: Impacts Associated with a Pedestrian Bridge over Highway 62
CC: Dr. Catherine French; Mr. Dennis Martenson, Dr. Merry Rendahl ; Mr. Nick Menzel; Mr. Logan Vlasaty

University of Minnesota - Twin Cities

CEGE 4102W: Capstone Design Project

Impacts Associated with a Pedestrian Bridge over Highway 62

Prepared for: City of Edina Engineering Department

Authors: Nick Menzel, Daniel Van Horn, Logan Vlasaty

Final Report Submitted on: May 5, 2016

CERTIFICATION

By signing below, the team members submit that this report was prepared by them and is their original work to the best of their ability.

Daniel Van Horn

Daniel Van Horn
Project Coordinator

Nick Menzel

Nick Menzel
Project Manager

Logan Vlasaty

Logan Vlasaty
Project Engineer

Executive Summary

The City of Edina requested DLN Consulting to analyze improvement options for pedestrian bridge No. 27520, that crosses Trunk Highway 62 (TH 62), west of Valley View Road in Edina, Minnesota. It currently does not meet the Americans with Disabilities Act standards of 5% maximum allowable running slope (Administration 1999), nor does it provide an easy connection for bicyclists, snow plowing during the winter months or other general maintenance. There are stairs that lead up towards the bridge and a small bike track for bicyclists to push their bikes up or down alongside the stairs. Finally, the bridge does not meet current MnDOT bridge clearance requirements, as it is a pedestrian bridge with 15'2." of clearance, versus the MnDOT requirement of 17'4" (MnDOT Bridge M. B. Office 2015).

Several options were investigated to address ADA and Bike connect the bridge with an existing bike trail to the north and Rosland Park to the south. Only a few options were explored in more detail, as some were not deemed viable. Options that were ruled out and their reasons include: designing a helix on the north end due to lack of space, building a bridge to go over Rose Court Avenue and connect to the bike path approximately 300 feet north along the bike path due to land acquisition concerns, building a bike elevator on the north side due to maintenance concerns, and building a tunnel under Highway 62 due to construction and feasibility concerns. The five designs analyzed in more detail include adding new ramps on both ends of the bridge, adding a helix-ramp on the south end, building a new bridge 350 feet west of the current location with ADA approaches, and building a new bridge in the current location with "switchbacks" on both ends of the bridge. These analyses include the structural design, soil assessment, and a hydrologic study regarding the impact of new construction in the area.

Mechanically Stabilized Earth (MSE) walls were considered as an option for supporting the path, if a straight path were to be used. These walls were considered as they generally reduce the costs associated with the structures. This cost reduction comes by the reduction in overall structural supports needed, as the MSE walls distribute the load over a much wider area than columns by using the soil as the means to provide structural integrity. However, MSE walls would not work at larger heights, as they would become unstable due to the narrowness of a bike path. The MSE walls would also not work in any situation involving a curve, as the walls have internal structural supports that prevent curvature.

Even though the current structure was designed to last until 2033, it is recommended by DLN Consulting to replace or update the structure. A new bridge would increase the mobility for persons with disabilities and integrate a smooth connection for bicyclists. Additionally, the safer ramp access will benefit families with small children as it will provide safety and ease to and from the park on the south end of the bridge. This is notable because includes the Edina Aquatic Center as well as a tennis court, a disc golf area, and plans for a pickle ball court. Of the two new bridge options, it is recommended to use the two "switchbacks" option, as park users will perceive this bridge as being shorter than a bridge that is further away from the path site.

The total cost associated with a new bridge design is estimated to be $2.3 million. This includes the bridge materials, structural materials, new vegetation/ditch reconstruction, labor, and engineering fees. DLN Consulting believes the benefits of this design outweighs the cost and would be a great addition for the City of Edina. A replacement bridge option is comparable to retrofitting and rehabilitation costs, which range from $1.9 million to $2.2 million. These high retrofitting costs are directly tied to the increase in structural capacity needed to support the City of Edina snow removal machines.

For these reasons, DLN Consulting recommends that the City of Edina incorporate the recommended bridge design into their upcoming capital improvement plan. The recommended plans would bridge a gap in the City of Edina's bike network and will provide safe access to persons with disabilities to travel between the residential neighborhood to the north and Rosland Park to the south. By constructing a new bridge 350 feet to the west of the current location, the existing structure can remain open during construction. The primary financier of this updated bridge would be the City of Edina, with grants from outside sources, including MnDOT for a new bridge, being pursued to supplement the high costs associated with bridge changes.

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Introduction

Currently, pedestrian bridge no. 27520 crossing Trunk Highway 62 (TH-62) in the City of Edina fails to adequately serve the needs of Edina residents. Particular concerns with the existing bridge include that it is not bicycle friendly, the bridge does not meet Americans with Disabilities Act (ADA) access requirements for sidewalks and trails, and the City of Edina can not provide adequate winter maintenance using city snow removal equipment. These requirements state that the maximum allowable running slope for a trail is 5%, unless a landing is provided (Federal Highway Administration 1999). These standards are not met due to the presence of stairs on both ends. Additionally, the current bridge lacks connectivity between the Edina bike network and the nearby Rosland Park. This project seeks to address these challenges by developing a number of alternate bridge modifications to improve the accessibility of the bridge, including the potential for a new bridge.

When evaluating design options, attention was given to area soil borings and the impact these have on structures within the area, utility information and the alterations to these utilities that would need to be made to facilitate any improvements, MnDOT regulations governing right of way and structures over trunk highways, and the groundwater elevations in order to ensure the long term quality of nearby wetlands. Further considerations were given to the permitting process for new structures and the agencies responsible for approving these permits, including MnDOT, the City of Edina, and the Nine Mile Creek Watershed District. Construction limits, the properties impacted by this construction, and cost analyses of the various design options were also considered in addition to the identification of funding sources to pay for the project.

Background and Site Information

The location of the pedestrian bridge (NBI # 27520) is over Minnesota Highway 62, west of Valley View Road in Edina, Minnesota (near mile marker #109). At this location, there is a residential area to the north and a park to the south. The bridge was built in 1963 with a designed 70 year lifespan and will be in need of replacement as it approaches the end of its design lifespan of 2033. In addition, the bridge does not meet the Americans with Disabilities Act (ADA) standards, as it has staircases on both ends of the span. This location is shown in Figure 1.

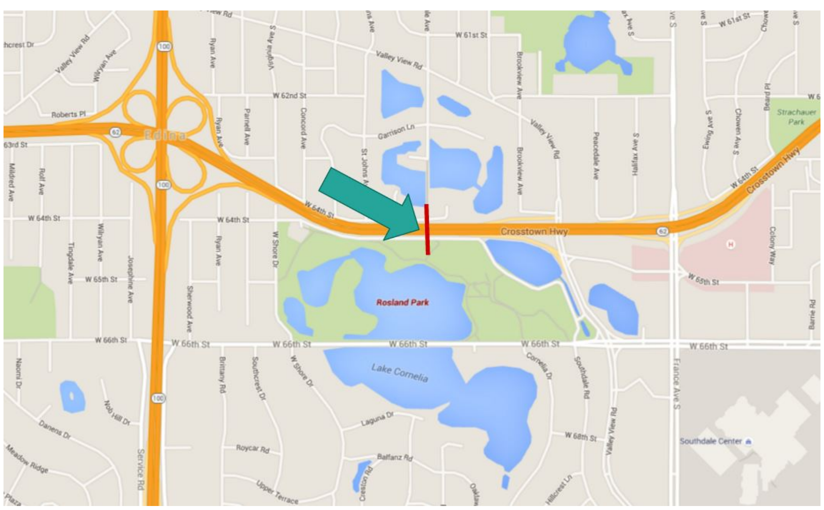

Figure 1: Current Bridge Location in Edina

The current length of the bridge is approximately 200 feet, spanning over Highway 62 and W. 64th Street to the south and it is 0.5 MI E OF JCT TH 100/ 0.5 miles east of TH 100. On the north side, the bridge stops short of Rose Court Avenue. The critical height of the bridge over the centerlines of Highway 62 is 15'2", which is below the current standard of 17'4", as stated in the MnDOT Bridge Design Manual. (MnDOT Bridge M. B. Office 2015). This bridge was built before the clearance standards changed in 1969 and was subsequently "grandfathered" into the system (Federal

Highway Administration 2015). An aerial view of the bridge being redesigned is shown in Figure 2.

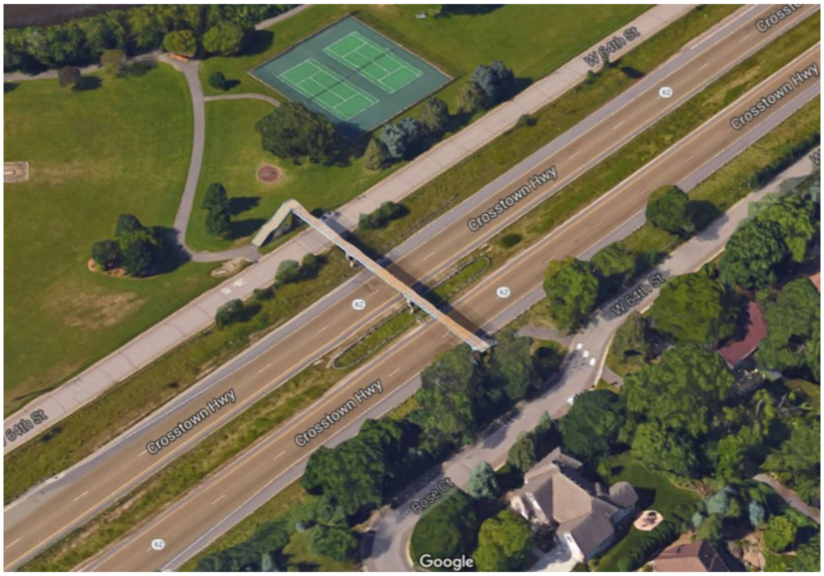

Figure 2: Aerial View of Current Bridge and Surrounding Area

The bridge location is in an area with wetlands on both sides of Highway 62. There are multiple ponds just north of the residences that drain to the soil near the northern bridge pier. Rosland Park, at the south end of the bridge, contains a Frisbee golf area, tennis courts, planned pickle ball courts, and two lakes. Near the bridge pier in Rosland Park, there is a cause for concern due to a low lying ditch along W. 64th Street. This area has a history of minor flooding during major rain events and snow melts. If construction impacted the drainage ditch to the west of the existing bridge, that impact would need to be addressed. However, our recommended design option would not have any impact on said drainage ditch.

Utilities present in the area include water main lines running underneath Highway 62, storm water, and private utilities, including cable and internet services. Additionally, sanitary sewer lines run under Rose Court Avenue; however, these sewer lines should not be impacted by the project, as they are deep enough below the surface to not interfere with the construction design options detailed with this project; if a structure is built on top of the sanitary sewer lines, however, this would be a major concern. Figure 3 shows the location of the existing sanitary sewer and water main lines near the bridge location. The regulations governing this project include the City of Edina public utilities and permits, and Minnesota Department of Transportation Bridge standards, and Nine Mile Creek Watershed water resource management plans.

Based on the as-built drawing information for the existing bridge, we know the existing subbase can support a span type bridge with wooden piles. We also have soil boring data from a nearby site, however we can only assume the soil at the project site is similar to the site that we have data for. This assumption can be a risky one, and it is suggested that sufficient soil data is acquired before the start of design of the new structure footings. With the data we have available to us, it is likely that semi-submerged concrete footings would suffice as supports for the ramps. Piles would like need to be used for the support abutments for the truss bridge superstructure which will be discussed more in the proceeding sections.

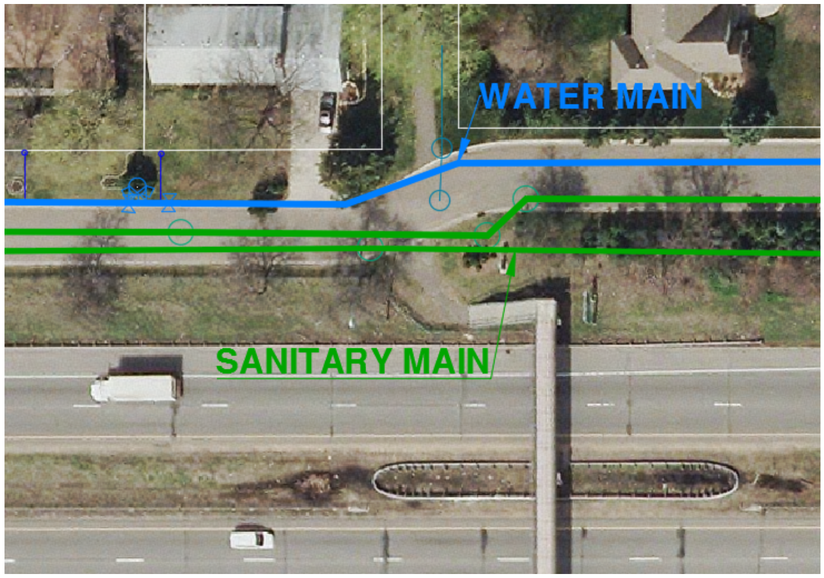

Figure 3: Public Utilities near Bridge Location

Design Considerations and Process

Early Design Process

The initial design process involved looking at overhead views of the project location via google maps, as well as physically visiting the site. This allowed the design team to rule out some options because of the obvious conflicts they would present; physical space to fit the north side approach ramp was the first large conflict. AutoCAD was then used to do initial horizontal design in plan view, however there were issues with this method because no elevation data was available and the elevations are extremely important for design. The design team was then provided with a basemap and Lidar elevation data from the City of Edina. The Lidar data could be used by Civil3D, a similar program to AutoCAD, and this elevation data was overlaid onto the basemap so that almost any spot in the project had existing elevation information available. The elevation data is only accurate to the nearest tenth of a foot, however this is accurate enough for design because the existing ground can easily be regraded a tenth of a foot to match what was designed.

The ultimate design challenge was how to get bridge users from the existing ground on either side of the highway onto the bridge deck. It seems simple at first, the existing bridge does it to a degree but it obviously does not allow disabled users or bikers to access the bridge. To get bikers and wheelchair users to the top of the bridge there are a couple options that were considered, both being a form of a ramp. These options come from the 2010 ADA Standards for Accessible Design which say that ramps must be at a certain grade for handicapped users. Fortunately these standards also make for a ramp that is easy to use for bikers too, unfortunately they add large design constraints to the project. The ADA Standards state that if one has a ramp that is greater than 5% running slope, there must be landings every 100 lineal feet for users to rest or safely turn around. A landing is a minimum 8' x 8' area that is at less than 2% slope in all directions, so they add lineal length to the ramp without gaining distance in the vertical direction to assist users getting from the ground to the bridge deck. Another drawback of these landings is that they are uncomfortable for bikers, as one could imagine a biker riding over these landings would be similar to a car going over a speed bump. The ADA Standards also state that under no circumstances can there be a ramp with greater than 8.3% running slope, so the best design option for this project would be to use ramps that are a consistent 5% running slope or less (ADA 2016).

Drainage/ Wetland Considerations

The location of the pedestrian bridge is not ideal, as it is located in an area with many wetlands. There are two ponds in close proximity to the north end of the bridge, coupled with low lying ground elevation, presents a concern about flooding and drainage in the area. As there are residences in the area, DLN Consulting does not want to increase the risk of flooding on the northern end of the bridge. A ditch approaching the south end of bridge from the west poses a risk of flooding during relatively normal rain events in the area. However, with a reconstructed ditch and added vegetation buffer, this area could be well suited to accommodate any bridge drainage. For this reason, DLN Consulting determined that the new bridge design should have a 1% slope decreasing from the north to the south. The north end provides access to the City of Edina's storm water system that can be connected by a drain at the end of the north span. In the design of the span, there will be a raised 2 inch square on either side of the bridge deck to catch and funnel precipitation using scuppers into the north drain. As this may not solve all of the drainage issues related to this pedestrian bridge, new vegetation and drainage buffers will be added to either side of the bridge to help mitigate any drainage issues from excess rainfall.

Issues with Retrofitting Existing Bridge

Retrofitting the existing bridge to meet ADA slope requirements was a primary design option in order to reduce the overall cost associated with the project. To do this, approach structures would be constructed to allow pedestrians and bikers to navigate to the bridge starting at the existing trail. There is approximately a 17' difference in elevation between the existing bridge deck and the existing ground on either side of the bridge. This means that about 340 lineal feet of ramp at 5% slope would be needed to allow users access to the bridge. These approach structures, or ramps, would be constructed at 12' wide and they would narrow at the tie point to match the existing bridge deck. However, retrofitting the bridge had high costs associated with the bridge. This is because the ADA accessible ramps would be too heavy to attach to the existing bridge support structures, so all new abutments with their own footings would need to be constructed. If this route was taken, the City of Edina would not be able to bring their plow vehicles onto the span bridge either, which conflicts with one of the project goals.

Retrofitting the bridge could still yield lower capital costs than a new bridge replacement; however there were issues that were considered to outweigh the benefits of having a slightly less expensive design. One of these issues includes the vertical clearance of the existing bridge, which also conflicts with the project goals. Currently, the bridge has a 15 feet-2.4 inch clearance above the centerline of westbound Highway 62, and the current MnDOT requirement for a pedestrian bridge over a highway is 17 feet-4 inches. This clearance was grandfathered in after the standards were updated in 1967 (Federal Highway Administration 2015), but is still a potential concern to MnDOT as the Minneapolis-St. Paul Metropolitan area continues to expand and discussions about expanding Highway 62 to accommodate an increase in traffic have begun. It should be noted that the bridge was hit by traffic on Highway 62 and instead of raising the bridge to the appropriate height, the bridge was simply repaired and left at the current height. Cost information will presented in a later section, entitled "Schedule and Budget."

Figure 4: Exisiting Column Damage

Another concern is the bridge deck width, as the current bridge deck is 7 feet-6 inches wide, far less than the standard 12-foot width for a bicycle-shared pedestrian bridge. This would pose a challenge to bicyclists, pedestrians, and persons with disabilities alike as there would not be much room to maneuver while over the span of the bridge. The limited width also does not allow room for the City of Edina to perform day to day maintenance, such as snow removal. For the City of Edina to utilize their sidewalk snow plows, a new structure would be needed to provide the necessary width clearance, along with a heavier load rating. Moreover, the bridge should be replaced as it is approaching the end of its design life, which is 2033. This is a minor consideration, as the bridge passed its last inspection in 2012, and it satisfies MnDOT's requirements for staying in service. As MnDOT owns and structurally maintains the bridge, they would prefer to rehabilitate the bridge versus constructing a new structure, as long as the bridge continues to pass inspections. Extending the lifespan will likely increase maintenance costs over time which is a major consideration for DLN Consulting.

Building a New Structure 350 feet West of the Current Bridge Location

Due to the limitations surrounding the location of the existing bridge, another design option considered was for a new structure to be built 350 feet west of the current bridge location, connecting it to the bike paths on either end with long straight ramps matching into where the stairs are in the existing structure. This U-shaped design allows for larger radii on each curve, and a more seamless connection of the bike path on either side of Highway 62. The less favorable helix ramp design, which potentially causes bikers to dismount from their bikes and walk their bikes down the ramp, doesn't need to be considered, as there is plenty of space to construct the long ramps.

This option would feature the south ramp being close to the planned pickle ball courts and the tennis courts, but does not affect the Frisbee Golf Course. With the use of decorative Mechanically Stabilized Earth (MSE) walls that provide structural stability by distributing the load, the bridge has the potential to look aesthetically appealing to travelers on Highway 62 and will reduce noise for both residents on Rose Court Avenue and park visitors in Rosland Park. It will also act as a divider between the highway and the residents on the north end of the bridge, and park goers on the south end. Screens are particularly desirable for the residents north of the design location, as it would reduce the negative visibility of the highway. Some park goers on the south side may feel that these structural walls may be intrusive to the park, which is a concern worth noting.

Other things to consider with this option are that users do not like to see long straight ramps and may try to avoid them even though they are the same length of travel as a switchback; switchbacks are much more appealing to users. Additionally, there will be upwards of 10 trees that need to be removed for the ramps. The ditch on the south side would need to be addressed as previously stated for drainage concerns. These trees could be replaced elsewhere in Rosland Park for sustainability purposes.

Building a New Structure at the Current Location

Building a new structure at the same bridge location up to current MnDOT standards would eliminate most of the disadvantages of retrofitting the existing bridge. While it would have a slightly higher capital cost, a new bridge will reduce maintenance costs and improve the safety for pedestrians and motorists.

To keep the bridge designs at the current location, there are issues that needed to be addressed. On the north end of the bridge, there was limited space to work with between Rose Court Avenue and the Highway 62 Right-of-Way boundary. Any design that was considered as a viable option for the north end would require coordination with MnDOT, since their Right-of-Way would be encroached upon; this concern would be mitigated by effective communication during the design and construction process. Designs that involved disturbing Rose Court Avenue, whether passing completely over the road or reconfiguration of Rose Court Avenue, were not deemed viable because of the potential nuisance to the residents and minimal room for a suitable realignment of Rose Court Avenue. Some feasible approach options on the north end include a helix ramp with a small radius or a switchback ramp. A primary design goal for the north end was to construct the approach ramp without the need to acquire more property.

On the south end of the bridge in Rosland Park, one consideration of the design was to reduce impact on the park, an example of that would be to accommodate the Frisbee Golf Course. This posed a challenged as one of the basket targets is adjacent to the end of the stairs of the current structure; this basket target can be moved to create a new course for the City of Edina residents. If the bridge were to remain at the current location, a viable approach would require the removal and relocation of at least one of the basket targets. Despite the minor inconvenience of relocating a basket or two, the south end has more room for possible designs, being limited only by West 64th Street, and the tennis courts southwest of the span. This includes a helix ramp, a long curved ramp that would be partially ground supported, and a switchback ramp.

The bridge was designed to be have a steel girder with a concrete deck (Example in Figure 6, taken from (Steel-Construction.info 2016) as this was a simple choice to design, an easy design to construct, and an easier bridge to maintain. However, based on the size and span length of the bridge, a truss bridge would be more economical to implement (TriMet 2015). When designing the span of the bridge, the dead load combinations were determined according to AISC design code, and the MnDOT LRFD bridge design manual. The self-weight of the span included the structural steel girders and the six inch reinforced concrete deck. The live loads were determined according to the ASCE 7 design code and the MnDOT LRFD design Manual. Also included in the live load calculation was an accommodation of the standard LH-10 vehicle. This standard is required for pedestrian bridges with a bridge deck wider than 10 feet. This will allow the City of Edina to use their sidewalk snow plows on the bridge, as well as MnDOT to use small inspection vehicles/machinery on the bridge. For an exact calculation, the Oregon DOT bridge design manual was referenced for the design vehicle components associated with a pedestrian bridge (O. B. Office 2015). Snow loads that were found in accordance with ASCE 7 were dependent on the geographical location. The software utilized in the design process of the new pedestrian bridge include Microsoft Excel, and AutoCAD. See sample calculations in Appendix C.

Figure 5: Example of a Slab/Girder Pedestrian Bridge

9 Mile Creek Watershed Regulations

Other regulations that were considered in the design of the bridge span and approaches included ADA slopes, and Nine Mile Creek Watershed considerations. Since this project will have over 5000 square feet of changes, and over 50 cubic yards of soil disturbed, it will trigger a watershed permit to ensure that the project does not negatively effect the overall watershed drainage and sustainability. The Nine Mile Creek Watershed District must approve the final design of incorporating the storm water drainage into the storm water management system

(Nine Mile Creek Watershed District 2016).

Creating a Sustainable Bridge

An important aspect that was considered while analyzing the different design options was how to minimize the environmental and societal impact of constructing/retrofitting a bridge. This included how to reduce the materials used for construction, and using local materials. Also, our team considered how to not only leave the land just as it was found, but improve upon it by adding vegetation, drainage buffers, and new trees. All of these sustainability practices were done referencing the Envision rating system for sustainable infrastructure.

Design Options Analyzed in Depth

This section will identify the primary design options considered to replace or retrofit the pedestrian bridge. These options include two options for a new bridge (the recommended options) including a new bridge 350' to the west with two long ramps or a new bridge in the same location with two switchbacks. Options to retrofit the existing bridge include building a ramp on both sides of the existing bridge, and two options to build a ramp on the north side and a spiral on the south side. One of these two options utilizes a "switchback" ramp on the north side, whereas the other option utilizes a "long" ramp.

Option 1: New Bridge with 2 Switchbacks

The recommended design option is to build a new bridge in the current location that uses two symmetrical switchbacks. This option is desirable as it would meet all pertinent standards, including the ADA requirements for path slope, MnDOT requirements for bridge clearance, and the recommended path width for bikes of ten feet. This option would require the removal of trees on the north end and would preserve the existing tennis courts, pickleball courts and the frisbee golf course. This option is shown in Figure 6.

Option 2: New Bridge with 2 Long Ramps

An alternate design option considered utilizing a new bridge, is a bridge constructed 350 feet to the west of the current bridge, with long ramps parallel to Highway 62/ W. 64th Street on both the north and south sides, as shown in Figure 7. This option is cheaper than option 1, as it is easier to construct the long ramps than to construct the switchbacks. However, this option has issues with perception, as users think that that the ramps are longer if they have to bike/ walk to another location instead of using switchbacks at the same location. As this is an important issue for the City of Edina, this option was deemed to be an alternate option to the new bridge with 2 switchbacks.

Apart from the high cost associated with a new bridge, a primary design consideration for a new bridge was the need for a manageable drainage system for runoff. The primary design solution was to have a vegetative buffer along the length of the ramp to catch excess runoff and control the flow of the water, which serves the secondary purpose of being decorative and more aesthetically pleasing. A similar buffer is being planned around the future pickle ball courts in Rosland Park.

There are not many trees in the immediate area of the southern end of the bridge due to the Frisbee golf course, however there are at least ten trees that will need to be removed from the south end to accommodate the new bridge. These trees would be replaced in nearby Rosland Park for sustainability purposes.

The ramps leading up the bridge deck would be constructed on Mechanically Stabilized Earth (MSE) walls for the majority of their length. This wall type provides a less expensive alternative to having a conventional structure such as concrete columns, beams, and decks along the length, as MSE walls are soil reinforced structures that distribute the load of the path, bikers, and other structural components along the entire length of the path instead of concentrating

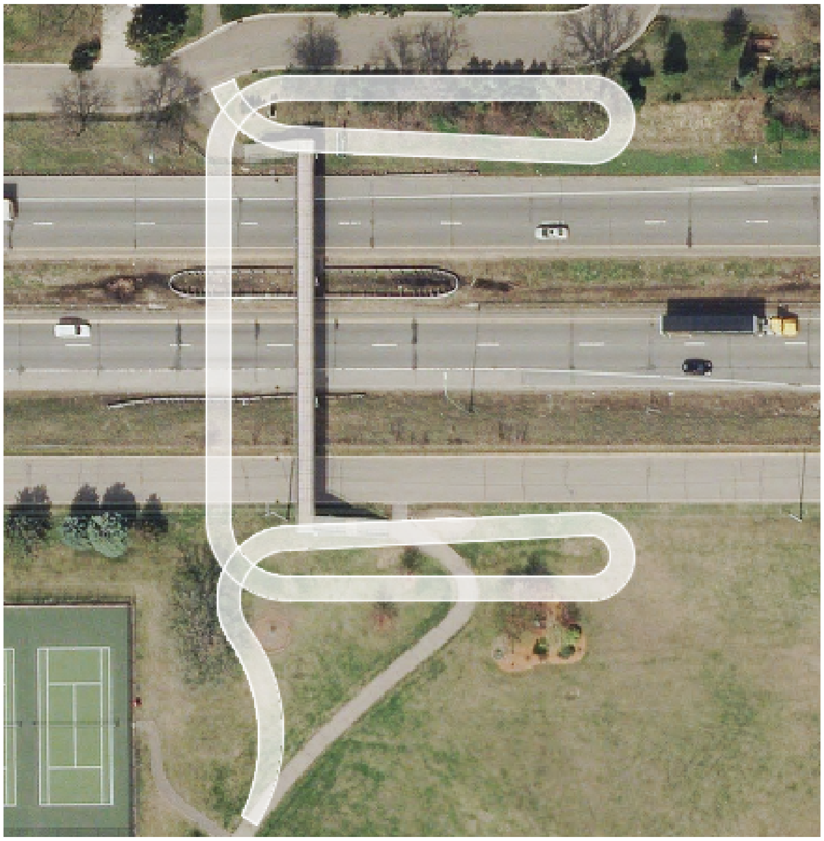

Figure 6: Option 1: New Bridge with 2 Switchbacks

Figure 7: Option 2: 2 Long Ramps Illustration

this loading in one conventional pile, pillar, or other similar structure. More information about these MSE walls can be found in Appendix A: Mechanically Stabilized Earth (MSE) Walls. The ends of the path would be ground supported in order to further reduce the costs associated with this project.

Option 3:"Residential" Switchback and "Park" Ramp

If the current bridge is kept, the primary design option that was considered was to retrofit the existing bridge with a switchback at the north end and a ramp "flowing" into Rosland Park. This option is shown in Figure #8. One particular benefit of this design option is the ability to keep the existing bridge in place, which significantly reduces the costs associated with the project. Further, this option is generally bike friendly, with the biggest points of concern being the 180° turns associated with the two points on the switch back and the connection on the north end.

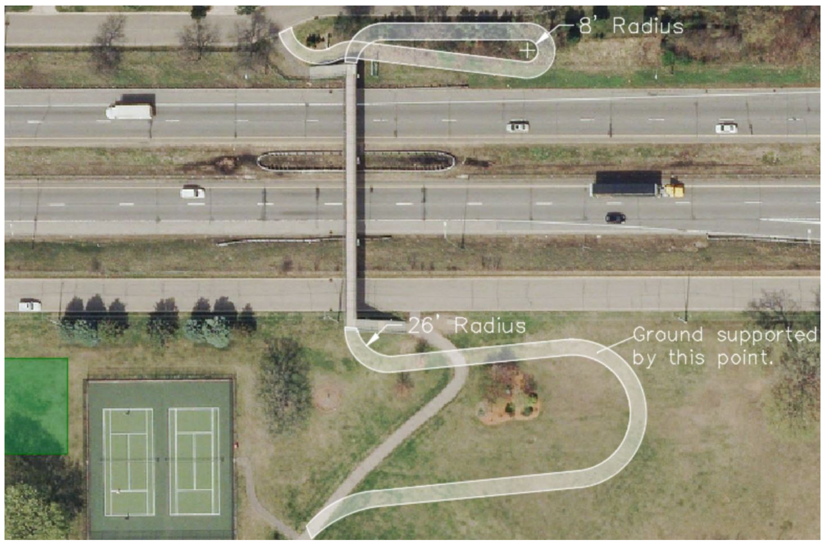

Figure 8: Option 3: "Residential" Switchback and "Park" Ramp Illustration

An additional benefit associated with a switchback-ramp combination is that the ramp on the north side (residential section) would be mainly ground supported, as the soil in the area of concern has a well-defined slope associated with it. Some earth work would still be needed in order to provide the defined slope. A large portion of the ramp on the southern side would also be ground-supported, further reducing the overall project costs.

Two major disadvantages of a switchback-ramp combination are that the switchback design requires additional engineering to ensure that the clearances are met according to the prescribed standards. Additionally, the structural costs of the switchback in the residential neighborhood would also increase the overall cost of the structure. Second, the ramp on the south side negatively impacts the existing frisbee golf course. Officials at the City of Edina would like to retain all existing facilities within Rosland Park, unless critically necessary to remove those facilities.

Option 4: "Residential" Switchback and "Park" Spiral

A fourth option considered to reduce the footprint of the southern ramp in option 2 is a spiral on the south (park) side. This option is shown in Figure 9. One of the primary benefits to this option is that a spiral is a single structure, instead of a ramp, which is an extended structure that requires more soil work and ground supports. Additionally, a spiral would impact a smaller portion of the park, particularly the Frisbee golf course near the bridge's southern pier. A switchback on the south side would require more construction and design time, which is not necessary for the southern side, as there is ample room to design a full length ramp.

The biggest disadvantage to having a spiral on the southern end of the bridge is that spirals are not the most bike-friendly option. Bikers typically will walk their bikes down spirals instead of riding down the spiral path if the radius is too tight or the biker deems it necessary to reduce their speed significantly in order to maintain safe conditions. Further, more effort will be needed to ensure that both clearance requirements and ADA standards are met, as the MnDOT Bridge Manual suggest 10' of clearance for bikes in a tunnel-like situation, with a minimum of 8'3" of vertical clearance. (MnDOT Bridge M. B. Office 2015) The combination of these two standards governs the range of radii that can be used for a spiral bike path.

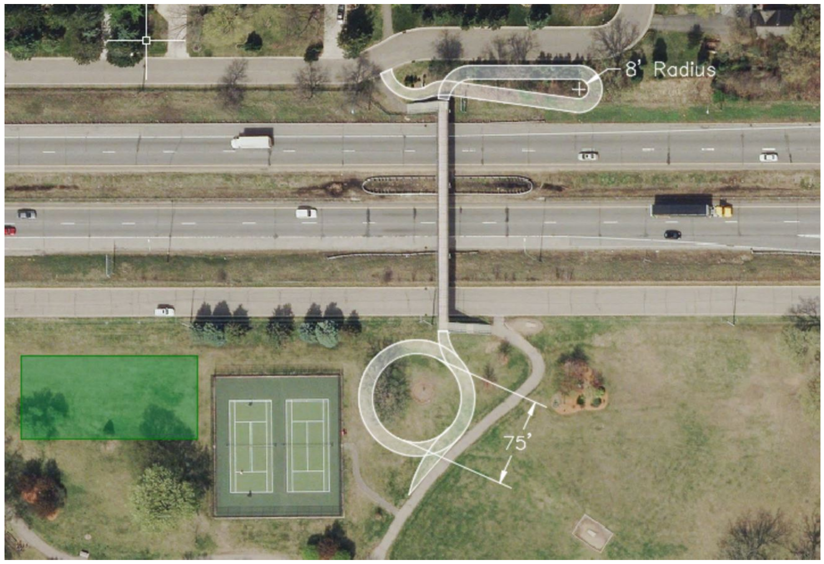

Figure 9: Option 4: “Residential” Switchback and “Park” Spiral Illustration

Option 5: “Long Ramp,” Road Connection and “Park” Spiral

This option includes a ”long” ramp on the north (residential) side stretching to the west and either a spiral or ”flowing” ramp on the south (park) side. This option is shown with a spiral on the south side in Figure 10. The primary benefit of this option is that it generally avoids undesirable 180° turns that are found in the switchback options, with the exception of the 180° turns present immediately at the ramp to bridge connection.

Figure 10: Option 5: “Residential” Ramp and “Park” Spiral Illustration

The biggest disadvantage with this option is that bikers and pedestrians would have to use West 64^{th} Street in order to get to the bike path on the north side. Use of West 64^{th} Street is undesirable, as it would add an unnecessary 300-350’ of length to the path (unnecessary in that it is not needed to satisfy ADA requirements). A mixed use road with bikes, cars, and pedestrians also increases the safety risks to the biker, which should be avoided where possible; however, concerns about bike traffic on a residential road could be mitigated by changing West 64^{th} into a bike boulevard, reducing the adverse affects of having bikes travelling on a residential road.

Other Options Considered

During the brainstorming process, other options were briefly considered but ruled out due to the relative impracticality of pursuing those options. Example pictures for these options can be found in Appendix B: Pictures of Other Design Options Considered.

"Flyover" Bridge

The "flyover" bridge option, included the bike path on the north (residential) side gradually sloping down connecting the current bike path. This option was ruled out because of the concerns of right-of-way and the high costs associated with obtaining land and the restriction of bridge use for those who live in the residential area directly to the north of the bridge, as the stairs would have to be removed to facilitate construction of the bridge. The residents of this area were considered to be some of the bridge's primary users, due to their proximity to the park on the south side.

"Residential" Spiral

The spiral option on the north (residential) side, located where the stairs currently exist, was ruled out due to the inability to meet both ADA requirements for a ramp and clearance requirements for a walkway. At a minimum, this option would require moving West 64^{th} Street to provide enough space for the spiral; further, spirals are not preferred in designing for bike-friendliness, as most bikers will typically walk their bikes down the ramp.

Tunnel

Bike tunnels have been used in a number of projects to reduce the overall path length needed for sloping. This reduction in sloping compared to a a bridge is due to the smaller overhead clearance required for a bike within a tunnel versus a semi-trailer passing under a bike bridge. However, a tunnel was quickly ruled out for this project as tunneling would require extensive construction, the potential closing of Highway 62 (a major thoroughfare in the Twin Cities metro), and the presence of a shallow water table in the area surrounding the bridge.

A tunnel option could be reconsidered if Highway 62 was widened to support an increased traffic volume. The large amount of earthwork necessary to widen Highway 62 would make a tunnel significantly more cost effective and would reduce the overall ramp length needed to achieve a slope that satisfies ADA requirements.

"Residential" Elevator

In extremely tight spaces, bike elevators have been conceived to reduce the overall space requirements while ultimately still providing bike connectivity between two previously disconnected bike networks. (Authority and Pathway 2016) However, an elevator was deemed to be a less than desirable option for this project, as the bike traffic was not enough to warrant the increased design constraints, capital costs, and maintenance costs. Further, local weather conditions would significantly reduce the intended lifespan of an outdoor elevator due to the temperature variations, leading to the need for a new elevator in the relatively near future.

Primary Design Refinement

Bridge Structure

Any of the approach options could be retrofitted to the existing bridge, but due to the previously stated concerns, DLN Consulting designed a new structure. For a new bridge, DLN Consulting found the best design choice would be for a structure at the same location with switchback ramps on either end (Option 1). The bridge span currently runs high to low from Rosland Park to the residential area. With this new design, the span will run the opposite direction to allow for drainage in the Rosland Park ditches. For the approach on the north end (residential area), the curves and ramps have space constraints and were designed with a minimum turning radius to accommodate the City of Edina's sidewalk snow plows. For the approach in Rosland Park, a larger turn radius was incorporated to allow the ramps to reach ground elevation more quickly, becoming ground supported, and to increase comfort for bicyclists. Additionally,a switchback ramp design is generally more appeasing to pedestrians and bicyclists as the perception of distance traveled is less than that of a long ramp. A cross section view of the proposed design can be seen in Figure 11. DLN Consulting estimates the cost for construction of this new structure and the demolition of the existing structure to be approximately $2.3 million. When analyzing the design options, long term construction and overall bike accessibility were the primary concerns.

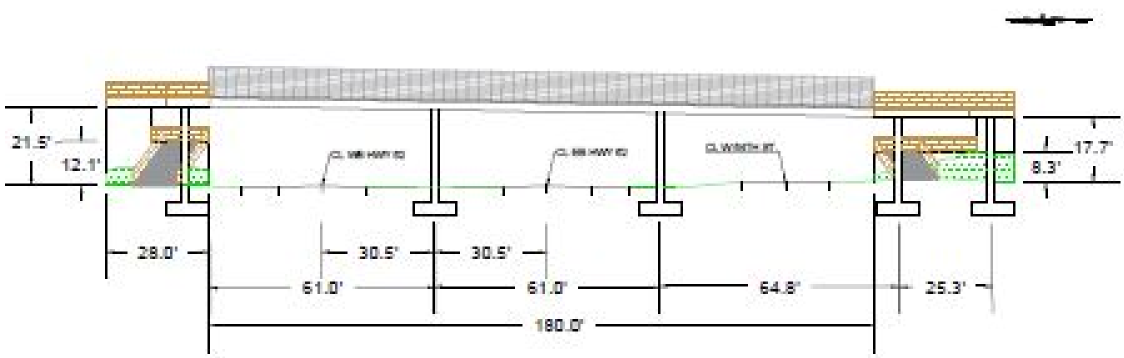

Figure 11: Cross Section of New Bridge Facing East

Drainage Requirements

While there were concerns with the drainage issue in Rosland Park, there is room to construct a larger ditch to discharge the bridge runoff. However, there was not enough data available to conduct a hydraulic analysis in the area to design a new ditch. If no ditch is constructed, the consequences for flooding were deemed more acceptable for the park vs. the risks of flooding in the residential area. This contributed to the bridge design sloping south towards Rosland Park.

Sustainable Practices Associated with Bridge Design

Envision guidelines for infrastructure were used as a framework for determining characteristics of the project that meet or exceed sustainability principles and which areas could be improved. Each of the five categories has been analyzed to determine the overall sustainability of option 1 with MSE walls forming the structural basis of the ramp (ISI 2012). [1]

[1] Note: neither the students working on this bridge modification project nor their mentors from the City of Edina are Envision Sustainability Professionals (ENV SPs). The project cannot receive an envision award unless a third party evaluator verifies the project meets Envision standards

Quality of Life

Overall, quality of life was the strongest category for the project at hand. Community quality of life will be improved by connecting bike networks and making the bridge ADA accessible. This connection also improves community mobility/ access, site safety (by trading stairs for a ramp), and enhancing the public space by improving general access to the park and adding buffers with an aesthetically appealing quality. After completing the envision checklist for Quality of Life, DLN Consulting gives this project a 60% rating.

Leadership

Leadership, with regards to sustainable processes, is also a major component of the project. In particular, there will be collaboration between City of Edina Engineering, Parks and Recreation, MnDOT, and 9 Mile Cree Watershed. Furthermore, the city residents will be involved in the process to determine if the project should be pursued any further and to involve those who will be impacted by the project. Finally, infrastructure integration is a key component to this project, as well as extending the useful life of the park nearby and the bridge if an option utilizing the existing bridge is used. After completing the envision checklist for Leadership, DLN Consulting gives this project a 56% rating.

Resource Management

Resource management at all levels was considered for this project. A particular portion of the new bridge construction focusing on resource management was the ramp being constructed using the soils present in the surrounding area to the furthest extent possible. This will reduce the amount of material needed for the ramp supports in Rosland Park. While it is not required, it is recommended that the materials from the existing bridge be recycled, though this would come at an increased disposal cost. A further analysis of the structure should be conducted to determine if any of the existing materials have salvageable value to help offset these costs. Finally, replacing the current bridge before it is deficient will save the City of Edina and the Minnesota Department of Transportation a significant portion of funds due to increasing maintenance costs. After completing the envision checklist for Resource Management, DLN Consulting gives this project a 32% rating.

Natural World

Sustaining the natural world is a high priority for this project, especially regarding the large number of wetlands and lakes in the area surrounding the bridge and the construction site. Procedures were implemented to preserve the wetlands; some design options were eliminated if they impacted the wetlands or the water runoff in the surrounding area. Soils will be restored to preserve the integrity of the soils in the surrounding area. After completing the envision checklist for the Natural World, DLN Consulting gives this project a 52% rating.

Climate and Risk

As the state of the climate is imperative for the community, DLN Consulting took steps to reduce the environmental impact on the climate. Relating back to resource management, the materials for the new pedestrian bridge can all be sourced locally. This will help reduce emissions from transportation and conserve energy. While building a bridge generally is not sustainable, it should be noted that the use of the bridge promotes sustainable practices. Of which include walking, running, and bicycling. This means once the new structure is built, the carbon footprint thereafter will be significantly less than a bridge built to carry regular motorized traffic. After completing the envision checklist for Climate and Risk, DLN Consulting gives this project a 24% rating.

for sustainable practices. The students are still able to use the Envision guidelines as a basis for sustainable practices, however.

Schedule and Budget

The project was completed on schedule so that the City of Edina could incorporate this proposal into their upcoming comprehensive plan renewal. The beginning of the design process commenced with the determination of bridge approaches at the current location. Once these were determined, another option was analyzed at a location 350 feet west of the current structure. The analysis of these options included finding similar projects and converting project costs to 2016 dollars, this was done using skills acquired from a Construction Estimating class taken through the U of M. A meeting with MnDOT Bridge Estimates Supervisor, Jeff Southward, and MnDOT Preliminary Bridge Plans Unit member, Dan Prather, was also used to help refine the cost analysis. They provided very helpful information and comparable projects to help establish a rough estimate for each design option. However, it should be noted that for all of these comparable projects, the engineer's estimate was approximately 5-10% different from the actual project cost, so it would only be reasonable to assume that the estimates in this report are only accurate within 15%.

The project came in under budget at $35,850, while the estimated cost was $38,200. This was due to an overestimate of the amount of time allotted for Cost Analysis, Permitting, and the Option Analysis. Additionally, there was an underestimate of the amount of time allotted for composing the final report. The remaining tasks came in at, or near the expected budget. A full break down of the budget for each task can be found in Table 6. A figure showing the weekly time spent by DLN Consulting can be found in Figure 20 and a breakdown of the tasks completed can be found in Figure 21.

Table 1: DLN Consulting Costs

Project Task	Projected Time Expenditure [hr]	Projected Cost	Actual Time Expenditure [hr]	Actual Cost
PDW	6	600	6	600
Meet with Mentors	24	2400	6	2400
Biweekly Project Reports	14	1400	13.5	1350
Report 1st Draft	25	2500	28	2800
Report 2nd Draft	18	1800	15	1500
Final Report	10	1000	74	7400
Midterm Presentation	21	2100	26	2600
Final Presentation	28	2800	18.5	1850
Regulation Research	32	3200	27	2700
Design Conceptualization	87	8700	72.5	7250
Cost Analysis	24	2400	16.5	1650
Permitting	21	2100	7.5	750
Option Analysis/Refinement	72	7200	30	3000
Total	382	38200	358.5	35850

DLN Consulting Billing Rate = $100/hr

Table 2: Bridge Cost Comparison

Option	Description	Cost (USD)
1	Dual Switchbacks	2.3 M
2	2 Long Ramps	2.1 M
3	”Residential” Switchback and ”Park” Ramp	1.9 M
4	”Residential” Switchback and ”Park” Spiral	2.2 M
5	”Long” Ramp, Road Connection and ”Park” Spiral	2.1 M

Future Design Considerations

Going forward there are some important aspects of this project that need to be addressed. With the limited time and resources available to the DLN Consulting team, not everything could be effectively taken care of in this report. One major issue is that there is a sanitary sewer main that is running paraallel to Highway 62 on the north side of the bridge. The conflict with this line is that, according to our basemap data, it is running below the proposed switchback for the north side bridge access. Even if the sanitary line is deep enough that there is not a direct conflict wtih the approach support structure, it is not common practice to have a utility line running under an immobile structure and this should be addressed before construction.

Something else to consider is the fact that DLN Consulting did not have sufficient soil boring information for the project area, specifically the areas where footings would be needed to support the bridge and approach ramps. This is important information to obtain and can have an immense impact on the cost of the project as well as what design option is really the most feasible. Assumptions were made based off nearby soil information, which was approved of by the team's mentors with the City of Edina. However, it should still be noted these assumptions can lead to further problems down the road if not verified to be accurate and safe assumptions.

Lastly the DLN Consulting team was not able to do sufficient simulations for how the new bridge would impact drainage during rainfall events, or how it would compare to the existing bridge. This is an important aspect of any civil engineering project and further analysis of drainage will be required moving forward. It was discussed with the team's mentors that the increased impervious area should not be nearly enough to reqiure new storm structures or re-routing of rainwater, however these are only educated guesses and not by any means an engineering decision. Finally, the ultimate aspect of the project going forward will be public acceptance and this can have the power to completely change the face of the project.

Summary

The primary goal of this project was to improve user accessibility of the bridge connecting Rosland Park a residential area north of Highway 62 in Edina, MN. Secondary goals associated with this project include connecting two disconnected bike paths on either side of Highway 62, as well as to aide in snow removal from the bridge by the City of Edina. After these goals were satisfied, a cost benefit analysis was performed to determine the most viable and workable options for improving the bridge. The designs took under consideration soil conditions, utility information, and groundwater drainage reviewed by outside consultants and DLN Consulting and produced diagrams illustrating the design options. The design work was completed using Civil3D and a basemap including elevation data provided by the City of Edina.

Multiple design options were considered, from a tunnel under the highway to an elevator, but the final optimal design was a truss bridge with switchback ADA compliant approach ramps. This final design is symmetric, which is always beneficial when considering user enjoyment, and it also has small impact on the park and residential area on either side. Another benefit of this design is that it eliminates a major safety hazard associated with traffic use on Highway 62, that is it eliminates need for any concrete columns in the median or adjacent to the highway. This safety benefit is hard to put a value because it is impossible to say if a conflict would ever occur with the existing bridge columns, however it is obvious that the benefits of having no columns near highway traffic is beneficial not only to highway users but also the City of Edina.

After meeting with the MnDOT bridge department it was decided that a pre-stressed steal structure bridge would be the best option for this application. The benefit of a truss bridge is that it can span up to 230' without supports in the span, and still be much cheaper than a concrete span bridge with pier supports. This bridge type is very common in these types of projects because it is visually appealing, and has simple construction involved with erection once the structure is on site. The traffic impact on Highway 62 is an other huge benefit of using a pre-fabricated truss for the bridge superstructure, MnDOT reports that this superstructure could be placed with just a single overnight closing of Highway 62.

Our final design includes constructing a new truss bridge just to the west of the existing bridge, this will help use dead space for the approach ramps instead of having a larger impact on the park. This bridge will have a 12' wide deck along with 12' wide switchback approach ramps at 5% running slope that will be very appealing to users. The pre-fabricated truss superstructure will easily carry the loads associated with bike and pedestrian traffic, as well as being able to support a heavy vehicle such as a snow plow used during winter maintenance. The final design will tie nicely into the existing bike trail system in the park, and it will require minimal reworking of the existing ground and pathway which is a benefit to permitting and project costs. The total estimated project cost to remove the existing bridge and construct a new bridge to all current standards, will be approximately $2,300,000. MnDOT is a possible funding source as it would be beneficial to their traffic on Highway 62 to have the existing low-clearance bridge be eliminated from their property and replaced with a newer, low maintance bridge with much better vertical clearance and zero points of conflicts for highway traffic.

It is believed that the work of DLN Consulting has successfully completed all of the project goals and found a feasible solution to the problem that was presented by the City of Edina. The total fee for the engineering done by the DLN Consulting team is $35,000. Please note the section of the report that discusses steps going forward with this project because there are still important aspects that need to be addressed. DLN Consulting would like to thank the City of Edina for their participation in the project, and hope that they enjoy our work.

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Appendix A: Mechanically Stabilized Earth (MSE) Walls

Mechanically Stabilized Earth (MSE) walls were first developed in 1957 by the Reinforced Earth Company (Anderson and Brabant 2010) and were first called Reinforced Earth walls. These structures were initially designed as retaining walls, but were soon used in order to support heavy and concentrated loads from railways, industrial structures, and highway bridges. Currently, they are used in a number of projects to reduce the overall costs associated with the project, as the reinforced structure reduces the overall cost as compared with concrete pillars and beams. Further, the MSE walls can be aesthetically pleasing due to different facing that can be used in the construction of the walls. An example MSE wall is shown in Figure 12 (Anderson and Brabant 2010).

Figure 12: Example of Aesthetically Pleasing MSE Wall

MSE walls function using the principles of soil mechanics to impose an effective lateral restraining force on the soil element. This is accomplished by using inextensible horizontal reinforcing elements placed inside the soil mass, counteracting the lateral strain impacts caused by dilation by adding friction between the reinforcing elements and the soil mass. This combination of forces leads to larger surcharges causing the material to become stronger, adding flexibility and to the overall structure until the failure point of the materials. These structures work well in large, straight road and railroad structures, but are limited by a width to height ratio of 7:10. This limiting ratio is non-applicable for larger structures such as roads and railroads, but is the critical ratio for a bike path.

Appendix B: Pictures of Alternate Design Options

"Flyover" Bridge

Figure 13 shows a "flyover" bridge that would go over all four lanes of Highway 62 in addition to Rose Court Avenue on the north and West 64th Street on the south and connect to the bike path on the north approximately 300 feet past Rose Court Avenue. The northern portion of the path would be a structure near the bridge and transitioning into an abutment and then a ground supported ramp at the far northern end of the bike path. This bridge was deemed unrealistic, as it would require a very large structure and the acquisition of a significant amount of private property, greatly adding to the cost of the project.

Figure 13: Example of "Flyover" Bridge Connecting into Existing Bike Path

"Residential" Spiral

Figure 14 shows a possible spiral on the north side of the bridge. Similarly, figure 15 shows a spiral ramp sized to fit in the current space available. Both were ruled out due to space constraints between Highway 62 and Rose Court Avenue. These constraints lead to a slope of 10-12% in order to satisfy overhead clearance requirements, double the ADA standards for ramp slope.

Tunnel

Figure 16 displays an example of a tunnel passing underneath a highway. A tunnel underneath Highway 62 to replace the existing bridge would need to be more than twice as long and up to five times longer than the tunnel shown in this picture due to the width of Highway 62 itself. The picture is from the Maryland Transportation Authority (MDTA). ((MDTA) 2015) This tunnel option was ruled out due to concerns about area water tables and the large amount of shut down time on Highway 62 needed for construction of a tunnel, significantly increasing the costs associated with the project.

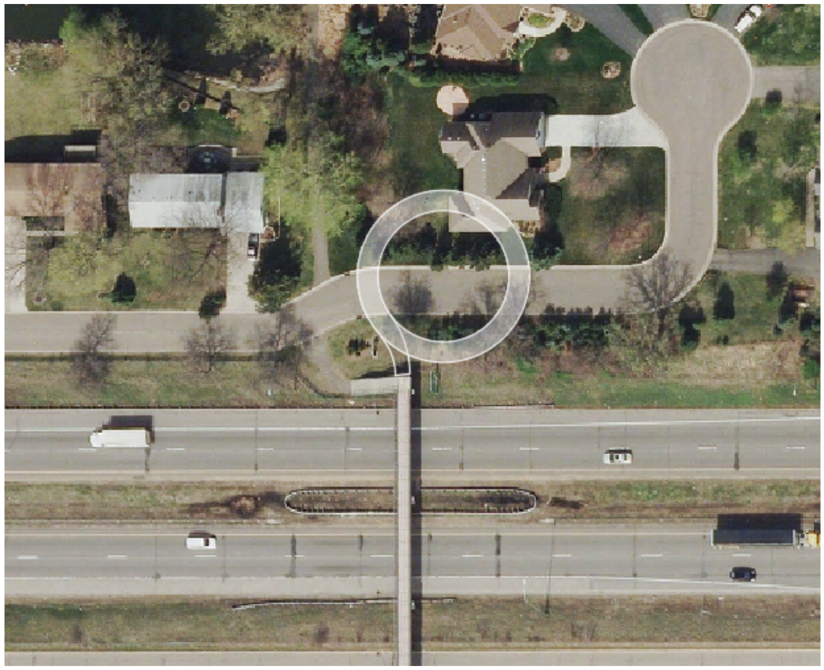

Figure 14: Example of Spiral Ramp on North Side of Highway 62

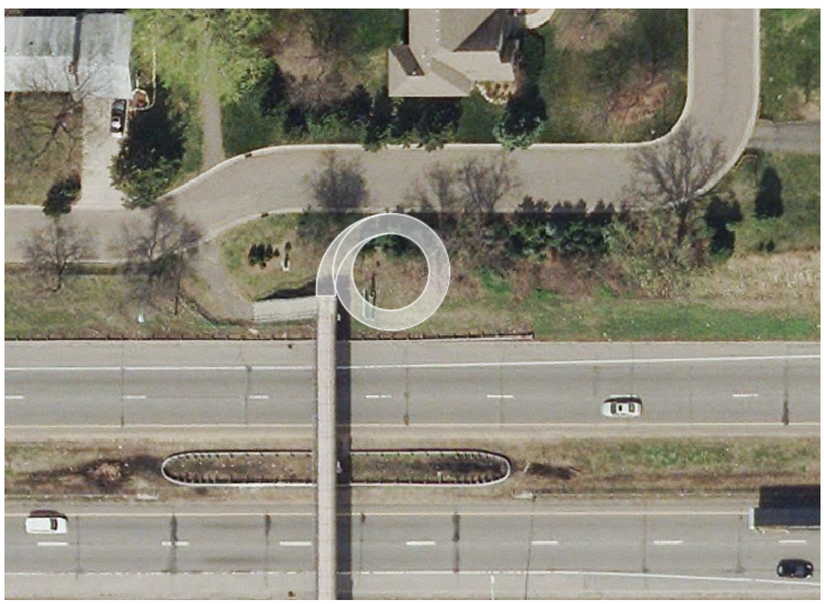

Figure 15: Example of Spiral Ramp Constrained Between Highway 62 and Rose Court Avenue

“Residential” Elevator

Figure 17 displays an example of a proposed bike elevator in San Francisco, California. Authority and Pathway 2016 This option was ruled out due to the high maintenance costs associated with a bike elevator in Minnesota. These maintenance costs would increase the lifetime costs of an elevator.

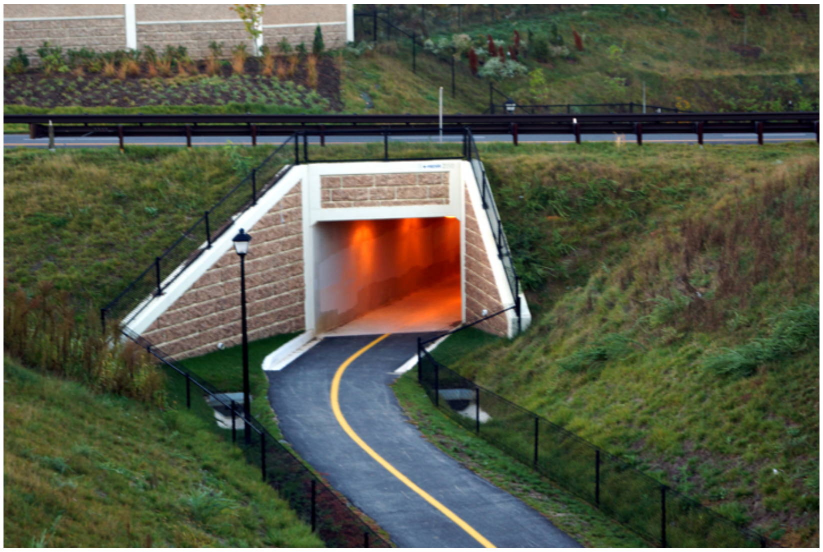

Figure 16: Example of Bike Tunnel underneath Highway

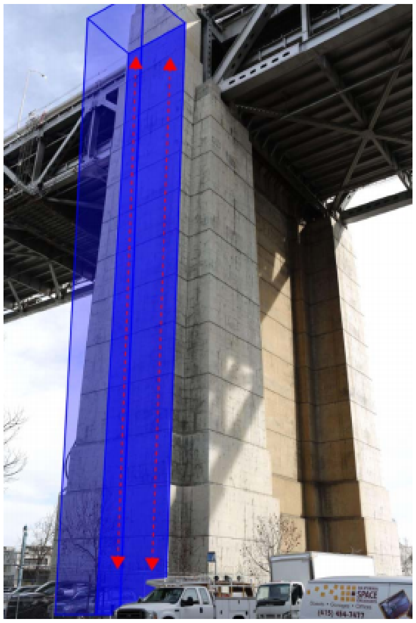

Figure 17: Example of a Bike Elevator for Lift up to Bridge Deck

Appendix C: Sample Calculations (Bridge Design)

GENERAL INFORMATION
Specifications Used:
-AISC 14th Ed. -ASCE 7
-MnDOT LRFD Bridge Design Manual
-Oregon Department of Transportation Pedestrian Live Load
-ACI 318-14

Geometry

Table 3: General Dimensions

Girder Details - W27x84			Slab Details		
Description	Value	Units	Description	Value	Units
Span Length	193	[ft]	Height of Slab	6	[in]
Member Length	20	[ft]	Width of Slab	12	[ft]
Area of Steel	24.7	[in^2]	Girder Spacing	11.75	[ft]
Depth	27	[in]	Top and Bottom Cover	2	[in]
Brace Spacing	10	[ft]	Concrete Compressive Strength	4	[ksi]
Steel Yield Strength	50	[ksi]	Reinforcing Steel Strength	60	[ksi]

Table 4: Loading Information

Unit Loads					
Description	Value	Units	Value	Units	Source
D_{Steel}	0.084	[k/ft]	0.084	[k/ft]	ASCE 7
D_{Slab}	0.15	[kcf]	0.9	[k/ft]	MnDOT
L_{ped}	0.09	[ksf]	0.09	[k/ft]	ODOT
LH-10	10	[k]	4	[k/ft]	ODOT
$W_{transverse}$	0.05	[ksf]	0.05	[k/ft]	MnDOT
$W_{longitudinal}$	0.012	[ksf]	0.012	[k/ft]	MnDOT
Snow	0.05	[ksf]	0.05	[k/ft]	ASCE 7

For a pedestrian bridge deck wider than 10 feet, LH-10 was used for a 10,000 lb maintenance vehicle requirement. The value of 4000 k/ft was used as a typical point load from one rear wheel of an LH-10 vehicle (O. B. Office 2015).

Factored Loads

AISC LRFD Loading Equations:

$$1.4D \tag{1}$$
$$1.2D + 1.6L + 0.5S \tag{2}$$
$$1.2D + 1.6S + 0.5L \tag{3}$$
$$1.2D + 1.6S + 0.5W \tag{4}$$
$$1.2D + 1.0W + 0.5L + 0.5S \tag{5}$$
$$1.2D + 1.0E + 0.5L + 0.2S \tag{6}$$
$$0.9D + 1.0W \tag{7}$$
$$0.9D + 1.0E \tag{8}$$

Where:

D = 0.984 k/ft
L = 4.09 k/ft
W = 0.05 k/ft
S = 0.05 k/ft
E = 0 k/ft

Table 5: LRFD Factored Loads

Load Factors		
Equation	Value	Units
1	22.386	[k/ft]
2	25.757	[k/ft]
3	21.313	[k/ft]
4	19.293	[k/ft]
5	21.308	[k/ft]
6	21.243	[k/ft]
7	14.441	[k/ft]
8	14.391	[k/ft]

Of these Factored Load Equations, Equation 2 controls. Thus, 25.757 k/ft was used as the design factored load throughout the remainder of the design.

Table 6: Shear and Moment Information

Shear and Moment Requirements				
Location	Shear	Units	Moment	Units
A	68.69	[k]	0	[k-ft]
MID AB		[k]	91.58	[k-ft]
B-	-103.03	[k]	-114.48	[k-ft]
B+	85.86	[k]		
MID BC		[k]	28.62	[k-ft]
C-	-85.86	[k]	-114.48	[k-ft]
C+	103.03	[k]		
MID CD		[k]	91.58	[k-ft]
D	-68.69	[k]	0	[k-ft]

These values were calculated from AISC Table 3-23 Shears, Moments, and Deflections Design Aids For this design, Case 39 was utilized, assuming three equal spans under a uniformly distributed load.

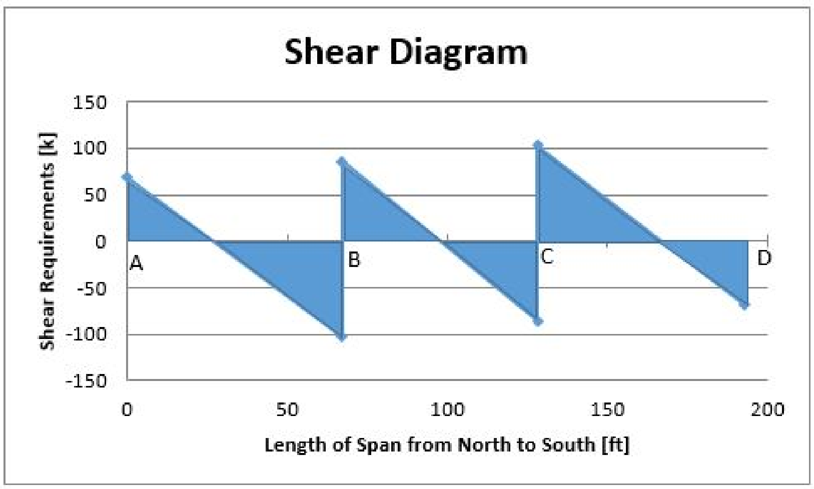

Figure 18: Shear Requirements for the Slab-Girder Bridge Design

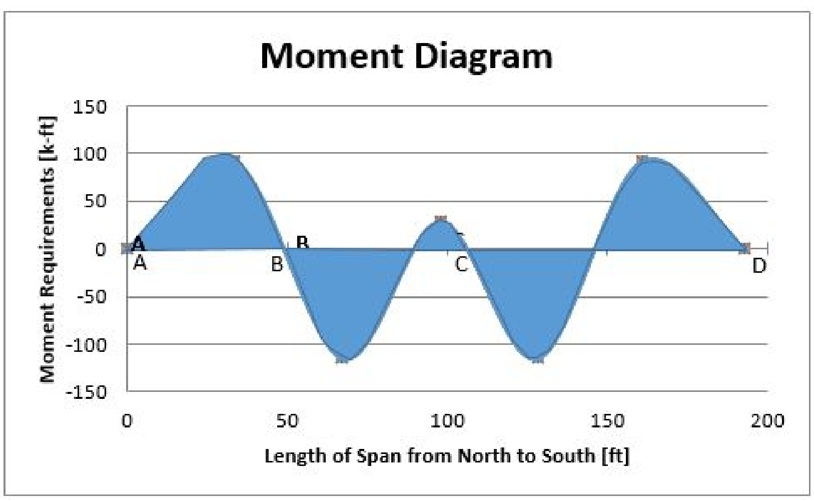

Figure 19: Moment Requirements for the Slab-Girder Bridge Design

Appendix D: TPR 8 and Memo

Figure 20 shows the weekly progression of hours completed by DLN Consulting and Figure 21 shows the completeness of the various tasks associated with the project at hand.

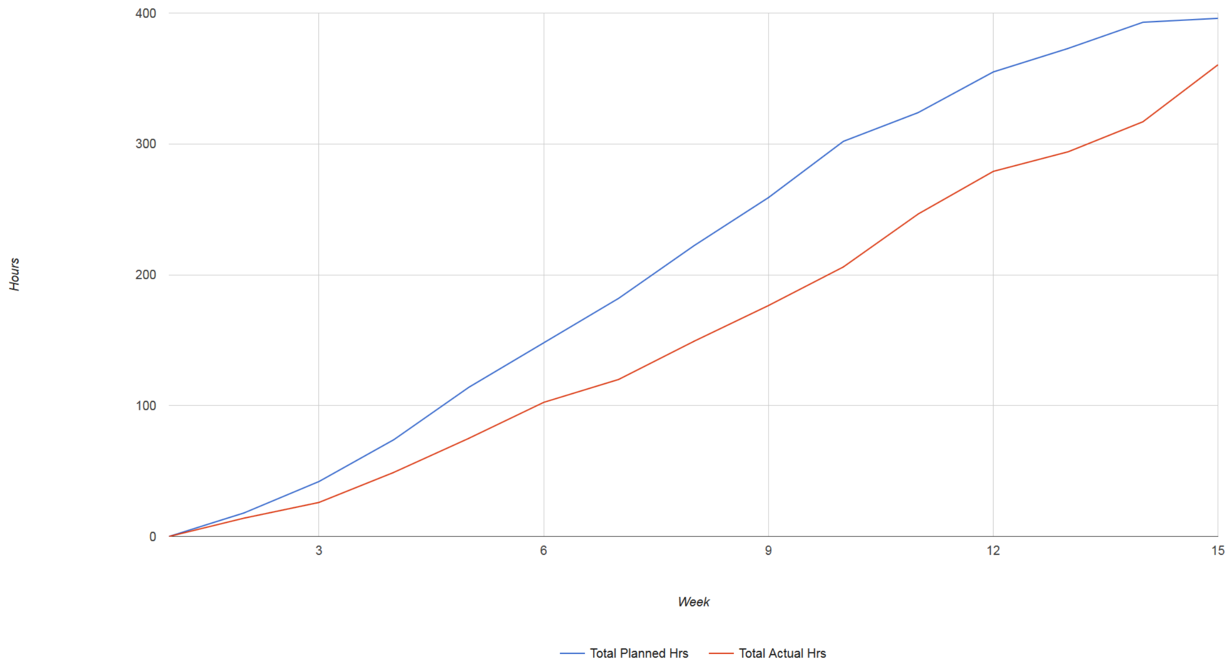

Figure 20: Weekly Progression of Hours Completed by DLN Consulting

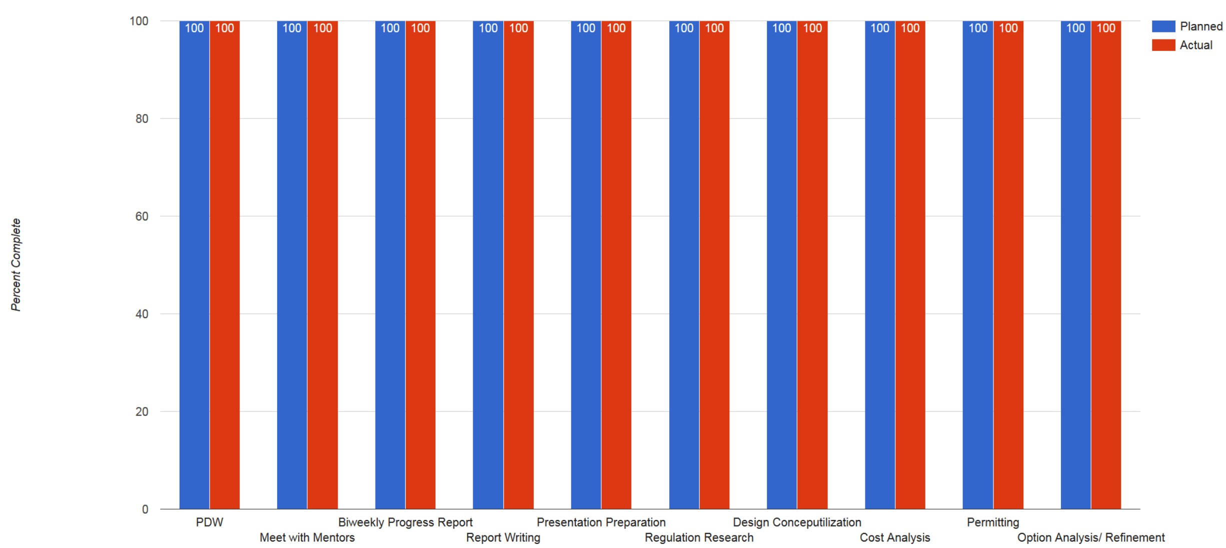

Figure 21: Breakdown of Planned vs. Actual Completeness

Minnesota Department of Transportation
Metro District
1500 West County Road B-2
Roseville, MN 5511

July 14, 2016

Mark Nolan
Transportation Planner
City of Edina
4801 West 50th Street
Edina, MN 55424

RE: Regional Solicitation Application for Pedestrian/Bike Bridge over TH 62

Dear Mr. Nolan:

Thank you for requesting a letter of support from MnDOT for the Metropolitan Council/Transportation Advisory Board (TAB) 2016 Regional Solicitation. Your application for the pedestrian and bicycle bridge (Bridge No. 27520) over TH 62 near Rosland Park impacts MnDOT right of way on trunk highway (TH) 62.

MnDOT, as the agency with jurisdiction over TH 62, would allow the improvements included in the application for the pedestrian/bike bridge project. Details of any future maintenance agreement with the City will be determined during project development to define how the improvements will be maintained.

This project has no funding from MnDOT. In addition, the Metro District currently has no discretionary funding in year 2020 of the State Transportation Improvement Program (STIP) or year 2021 of the Capital Highway Investment Plan (CHIP) to assist with construction or assist with MnDOT services such as the design or construction engineering of the project. Please continue to work with MnDOT Area staff to assist in identifying additional project funding if needed.

Sincerely,

Scott McBride, P.E.
Metro District Engineer

Cc: Elaine Koustsoukos, Metropolitan Council
John Griffith, MnDOT Metro District – West Area Manager